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ORIGINAL ARTICLES.

THE ANESTHETIC TO BE EMPLOYED IN THE VARIOUS OPERATIONS ON THE NOSE, THROAT AND EAR.

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For the removal of polypi and hypertrophic tissue in and about the nostrils, nothing has given so much satisfaction as a ten per cent. solution of cocain hydrochlorate made fresh each time employed and applied to the part with care by a delicate mop of aseptic cotton. When kept on hand a minute portion of mercuric chlorid should be added as an antiseptic. Still there are a few cases in which it is safer to employ eucain with the cocain in a five or ten per cent. solution, or what I frequently substitute is a solution of five per cent. of cocain and two and a half of eucain.

I have found in my experience when using the eucain alone, or even too large a proportion to the cocain, that there was a disposition towards hemorrhage. When cocain alone is employed there is but little hemorrhage, and even a pressing out of the blood on the surface of the parts to be operated on. After some hours, however, the blood returns with much greater force, causing a congestion of the parts. This congestion may be relieved in part by spraying with a solution of from five to twenty per cent. of antipyrin, depending on the amount of congestion. This should be used hot.

The eucain when employed in hypertrophy of the inferior turbinated bone requires the application to remain in contact twice as long as the cocain, say five minutes. In the case of hypertrophy of the tonsils, a ten per cent. solution of eucain applied with cotton with a small amount by spray renders them so insensitive as to enable them to be removed by the knife with free bleeding and but little pain, and it so hardens on the surface that the actual cautery can be used with safety. When ether is employed it cannot be used with safety. In the use of the eucain in some recent cases more pain was experienced and not so satisfactory anesthesia produced as by the cocain alone. The only advantage in the use of cocain is in cases of hysterical females, since there is no fainting and but slight disturbance of the heart. Eucain is not so agreeable to employ in coryza of pharyngitis since it causes sneezing.

The eucain has a bitter and disagreeable taste, and hence patients have no inclination to become addicted to its use, forming a habit as with cocain. In operations upon the mucous membrane of the ear, or for polypi or granulation, eucain has not yet taken the place of cocain, although a combination of both has been found valuable. For all mastoid and protracted operations upon the bone, there is nothing so satisfactory as ether as an anesthetic, followed by oxygen gas.

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Now and then a case is found insensitive to the use of either ether or chloroform. A case of this kind occurred in Jefferson Hospital, neither ether nor chloroform having a true anesthetic effect. This case had to be operated upon three times. Cocain was found very valuable when used in painting the parts as the operation was in progress.

In all extensive cutting operations and the removal of parts, it is of the utmost importance to have the patient fully under the influence of the ether. In cases where the ether, from any cause, is not well received by the patient, it will be well to begin the anesthetization by oxygen gas alone or combined with nitrous oxid, and then use the ether, keeping it up for several minutes so that the patient will not regain consciousness on the touch of the knife. The anesthetic effects of ether can be kept up through the nostrils in operations like staphylorrhaphy.

The position of the patient is of importance. In operations on the ear, removal of the nasal or naso-pharyngeal polypi, the patient is placed upon his side, one cheek resting upon a hard pillow covered with soft oilcloth and a towel, so that the face is turned downwards. When the operation is for the removal of adenoid growths the patient should sit up with the head and shoulders thrown well forward. A third position is sometimes employed—lying on the back with the head completely extended. It is always well to remember that in operations on the tonsils and naso-pharynx one is at times liable to have free hemorrhage under anesthesia. It will be necessary in such cases to use a gag of cork, wood or metal, with a string attached to it, inserted between the canine or first bicuspid teeth, on that side which is resting upon the pillow, the blood to be carefully swabbed out with hot water, which soon checks the bleeding. The addition of a portion of sodium bicarbonate assists the cleansing and antiseptic process.

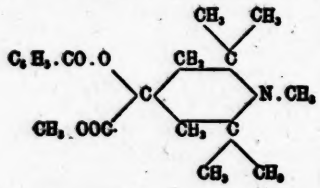
CONCLUSIONS.

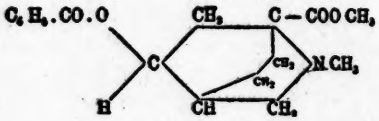
It is thought the chief local anesthetic, cocain, has been fully tested and proved to satisfaction that if employed with care it in many cases can supersede and take the place of the dangerous or systemic anesthetics. The eucain is still *subjudice.*

If the operator is an expert, short operations may be performed about the mouth, teeth, nose, pharynx and ears very successfully under nitrous oxid, not administered by the operator, but by a well instructed and competent assistant. If, as has been stated, the operation is protracted, ether with nitrous oxid should be employed and oxygen gas at the termination.

As to the use of morphia with ether or chloroform, these are matters still under consideration. My opinion is that its use is still hazardous from idiosyncrasies or in many cases by prolonging the anesthetic effect and weakening the heart action. I fully approve of the use of strychnin in all cases of weak heart or feeble pulse. This can be given a day or two before the operation combined in solution with sodium bromid. I do not approve of atropin as experiments with it have not been satisfactory.

A comparison between eucain and cocain. Chemical connection or relationship according to "Schering."





The salt employed in experiments is hydrochlorate, which is found in small shining scales containing one molecule of water of crystalization with a formula of $C_{19}H_{27}HClH_{20}$, and soluble in six parts of water at ordinary temperature.

Cocain when applied to the eye dilates the pupil and blanches the surface and gives but little pain. Eucain will not dilate the pupil, and causes redness, smarting and anesthesia, but no paralysis of accommodation.

The solutions of eucain are more stable than those of cocain and boiling sterilizes it, while long boiling impairs the anesthetic qualities of cocain. "Liebreich" gives

the following as the principal reactions of eucain hydrochlorate:

1. Caustic and carbonated alkalies and ammonia cause the precipitation of the eucain base from a watery solution of the hydrochlorate as a glutinous, coagulating sediment. Cocain hydrochlorate shows the same reaction.

2. Heating solutions of eucain hydrochlorate with a little iron chlorid causes a temporary yellow and orange discoloration; a similar reaction occurs with the hydrochlorate of cocaine.

3. If to five ccm. (1¼ drachms) of a one per cent. solution of eucain hydrochlorate there be added three drops of a five per cent. chromic acid solution, it causes the immediate appearance of a beautiful, crystalline, lemon-yellow precipitate. No precipitate occurs under the same condition with cocain hydrochlorate.

4. When five ccm. (1¼ drachms) of a one per cent. solution of eucain hydrochlorate is decomposed by the addition of three ccm. (45 minims) of a ten per cent. potassium iodid solution, it causes a milky discoloration. On standing for a short time the entire solution coagulates into a thin crystalline mush, with the separation of handsome colorless scales of eucain iodid. Under similar conditions, solutions of cocain hydrochlorate remain perfectly clear.

According to Dr. D. G. Vinci, of Messina, "a two to five per cent. solution of eucain instilled into the eye of an animal, as a dog or rabbit, caused complete local anesthesia in from one to five minutes. It began in the cornea, and spread from thence to the conjunctiva, and lasted on an average from ten to twenty minutes. It was readily prolonged by repeating the dose. The pupil was not dilated, and reacted well to light. Injected under the skin eucain caused complete anesthesia of the part so that the reflex could not be evoked even with a needle. A similar complete local anesthesia of the mucosa was effected when a eucain solution was painted over it.

The general action of the drug, both in cold and warm blooded animals, consisted in a marked excitation of the entire central nervous system, followed by paralysis; in toxic doses going on to death. Even 0.002 gram (1-33 grain) caused irritability, heightened reflexes, inco-ordination, and finally general paralysis in the animals experimented with. Small doses administered to mice and rabbits caused increased reflex excitability, and increased but weakened respiratory movements. Medium doses of 0.02 to 0.03 gram (1-3 to ½ grain) per kilogram (35 ounces) of body weight of rabbits caused repeated tonic and clonic convulsions. The animals lay senseless on their sides, with dyspnea, opisthotonos, and finally paresis of the posterior limbs.

The dose of eucain is about the same as cocain, but it is much less poisonous. The effect of eucain upon the nervous system is first excitant and later toxic, and in very large doses it produces central paralysis with convulsions.

When the dose is not a fatal one, the convulsions gradually cease, the increased reflex excitability disappears, and the paresis of the hind limbs slowly improves.

The effect of eucain on the central nervous system is therefore at first excitant, and later, in toxic doses, paralyzing. The paralysis is a central one, for if the sciatic nerve of a frog poisoned with eucain is exposed, and its peripheral end irritated with the induced current, the limb reacts in a normal manner.

The subcutaneous and intravenous injection of small and medium doses slows the heart on the average from twenty to thirty beats per minute, but without otherwise modifying the beats, or increasing the blood pressure. This effect on the pulse is caused by the excitation of the central vagus; for section of the vagi causes an immediate increase of the pulse to the normal and above it, together with an increase of the blood pressure. Death occurs from paralysis of the respiratory centres, for the heart continues to beat for some time thereafter.

In all these points eucain is similar physiologically to cocain. Eucain retards the pulse while cocain accelerates it. Dr. Berger's experimental results differ somewhat from those of Vinci.

I fully agree with Berger in the following statements, which I have corroborated by experiments and published very soon after the receipt of the first specimens of eucain. He says:

"There occurs a curious disassociation of sensibility that Vinci has not noticed; contact sensibility is first abolished, but

thermic sensibility resists the action of the drug for a longer time before it disappears. We have noticed a similar phenomenon with cocain." (*Societe de Biologie*, 1893).

The anesthesia of the eucainized eye is accompanied by hyperemia of the entire conjunctiva which outlasts the anesthesia; but in all cases this disappears within thirty minutes of the time of instillation. I have also noticed a lachrymal hypersecretion in the eucainized eye. These results differ somewhat from those of Vinci, who never observed, with eucain, more than "a very slight and hardly noticeable hyperemia;" I cannot explain this divergence of observation. I agree with Vinci, however, in that I have never noticed the slightest pupillary dilatation or trouble of accommodation in the eucainized eye. It may be remembered that I proposed some time ago to attempt to avoid these two inconvenient occurrences by using pilocarpin with the cocain that is instilled into the eye. (*Societe de Biologie*, January 14, 1893).

I have never seen with eucain the corneal troubles that cocain occasions, the dryness of the cornea that is manifested by the loosening of the superficial cells of the corneal epithelium (*Berger, Bull. de la Soc. franc. d'opthalmologie*, 1894, p. 61). These succulent protoplasmic cells, under the influence of cocain, show abrasions, which, in cases of infectious conjunctival disease, may serve as the points of entrance of pyogenic microorganisms. One fact speaks in favor of this hypothesis; it is well known that when cauterization is done in cases of gonorrheal conjunctivitis, the tendency to corneal abscesses is much more marked when cocainization has been previously employed. It is possible that the hyperemia favors the lymphatic circulation in the same way that massage does; but I consider any conclusions on this subject premature as yet.

In most of our cases I used cocain and eucain together according to the following formula:

℞ Cocain hydrochlorate.
Eucain hydrochlorate, aa 20 centigr. (3 grs. each).
Distilled water, boiled, 20 grams (5 drachms).

The vaso-constrictive action of the cocain, which, according to Mellinger, retards healing in corneous wounds and in affections of the anterior portion of the eye, is counteracted by the vaso-dilator action of the eucain. The anesthetic action is that of both drugs, while the effect on the pupil and accommodation is diminished by one-half.

Hypodermatic injections of a two per cent. solution of eucain give the same results as those of cocain, without the occurrence of the syncopal accidents that sometimes accompany the latter drug.

In conclusion, we may say that eucain is certainly an anesthetic of great value, and that we can confidently recommend it to the attention of practitioners. The association of it with cocain which we recommend for ophthalmic work seems to present special advantages which neither substance alone possesses.

Eucain is now employed in both major and minor surgery. An objection was made to its use on the plea that it hardened the tissue. This apparent hardening is not due to any specific property of the eucain, but is a necessary consequence of the injection method of local anesthesia, whatever material, even down to ordinary water, is used. Dr. C. L. Schleich, the originator of the infiltration-anesthesia method, admits that sutures are passed with some difficulty through the infiltrated tissue; but this is no drawback, and its only consequence is to give the operator a very little more trouble.

Experiments have demonstrated that, after Schleich's method, the wheals with eucain are just as complete, but not so painless as with cocain; to obviate this anesthetise the spot of puncture with the spray of ethyl chlorid and cleanse with carbolized cotton, or one to two per cent. carbolic acid solution.

In examinations and operations on the bladder, eucain gives more pain of a burning character; this is nothing compared to the greater safety of life, but it should not be used in cases where a tumor or other lesion is liable to bleed.

Eucain employment in dentistry has been found most valuable, but care must be taken and full directions given for its use to the novice.

COMPATIBLES.

The following list embraces the most important preparations that can be used

in combination with eucain hydrochlorate without changing it chemically nor in any way affecting its anesthetic action:

1. Antiseptics: carbolic acid, cresols (trikresol), guaiacol, napthol, resorcin, salol, ichthyol, formalin and iodoform. 2. Hydrocarbons, such as ligroin, petroleum, vaselin, benzol and toluol. 3. Fats and fatty oils. 4. Ethereal oils, camphor and terpenes. 5. Lanolin. 6. Alcohols, fusil oil, glycerin, etc. 7. Ether, acetic ether, oil of gaultheria, etc. 8. Chloroform, trichloraldehyd and chloral hydrate. 9. Alkaloids and alkaloidal bodies, such as quinin, morphium, antipyrin, phenacetin, caffein, etc. 10. All varieties of sugar.

INCOMPATIBLES.

Salicylic acid and corrosive sublimates form, with eucain, combinations which are sparingly soluble.

Hydrogen peroxid should not be mixed with eucain, as it slowly decomposes the same. However, those parts of the body which are treated with eucain can be cleansed with diluted solution of hydrogen peroxid before making an injection.

ANTIDOTES.

If unpleasant symptoms should be caused by an overdose of eucain, the remedies to be employed are the same as those used for cocain under similar circumstances. The cardiac stimulants, caffein, strophanthus, digitalis, strychnin, amyl nitrate, alcohol or alcoholics, ether or ammonia are indicated; in cases of emergency, nitro-glycerin may be given hypodermically. Strong black coffee is a readily available and efficacious remedy.

It will be noticed that in this paper the use of chloroform is not even mentioned, owing to its extreme risk to life. No one can fail to notice that, if he will but take the trouble to read my recent work and study the tables which I have taken pains to collect. It is with pleasure a recent article in the *American Therapist*, by Dr. Guest, in which the views of some of the most careful and conscientious Southern surgeons are given under the head of Chloroform Poisoning, takes to task the author of the Hyderabad Commission. From this I quote: "I wish to bring before you to-night, especially, the report of the Hyderabad Commission, with which all of you are familiar I have carefully studied this famous report that the dominant action of chloroform is not upon the heart, but upon the vaso-motor system and respiration, and I must say it is an enigma to me, for my clinical experience has been just to the contrary in all but three cases. It has been a very noticeable fact in my personal administration of over one thousand cases of chloroform anesthesia, that nearly all patients gave evidence of a depressing effect upon the heart's action when continued over ten or fifteen minutes. Consequently, I never feel absolutely safe in giving it if I have not ether ready to substitute at once when this depression comes on.

I sincerely believe I have averted many accidents from chloroform poisoning by the rapid substitution of ether when the first symptoms of depression of the heart's action were noted. Having had, however, three cases where chloroform acted primarily upon the center of respiration, I am convinced that it may act either upon vaso-motor system, centres of respiration, upon the heart itself, but most frequently upon the latter."

He then reports the three cases in detail, and it looks as if the chloroform employed was not pure.

GREEK FIRE.

During the reign of Constantine III, the Saracens besieged the city of Constantinople for five months, but were then obliged to retire.

They returned seven times during as many successive years, but were each time repulsed by Callimacus, who, in 688, invented an inextinguishable fire by which he destroyed their ships.

This Greek or liquid fire was made principally of naphtha or liquid bitumen, mixed with some sulphur and pitch extracted from green firs. Water, instead of extinguishing, quickened this powerful agent of destruction, which nothing but sand, wine, or vinegar could check. For four hundred years the Greeks kept the secret of its composition, but the Mohammedans at length discovered and used it. This fire remained in use until the middle of the fourteenth century, when it was superseded by gunpowder.—*Curious Questions.*

COMMUNICATIONS.

TREATMENT OF MALPOSITIONS OF THE UTERUS BY PESSARIES.*

THAD. A. REAMY, M.D., CINCINNATI, OHIO.

I wish to call attention to the uses of the pessary in retro-displacements of the uterus. The causes of displacements are well known to you all. You cannot have descent of the uterus without displacement. But now we have to deal with retroversion with the pessary. The pessary is ordinarily only an auxiliary to other treatment. The first thing the pessary does it to lengthen the vagina, and if it does not do that it is of no account. So far as it may increase the angle of the vagina with the angle of the uterus and not cause discomfort of the woman, it aids in the treatment of retroversion. I refer here to the primary conditions; I shall later speak of a pessary which does not do that, but is of value in giving comfort in worse cases.

But now we are speaking of a patient who is younger. The obligations of society, the foolishness of custom, have led so many young women to neglect to empty the bladder, or it is impossible for them to do it, and the bladder is kept inordinately full for many hours at a time, and this has a tendency to push the uterus over. Tight lacing and the destruction of the intra-abdominal pressure is another cause. We are speaking of a uterus that is retroverted. The vagina is not particularly distended. The utero-sacral ligaments have been stretched in every one of these cases to a slight degree.

We are speaking of an acute case; therefore, utero-displacement has taken place to a slight degree and there is a tendency for the little virgin uterus to settle down in the little virgin vagina. The introduction in such a case of the narrow Smith pessary or Smith funnel pessary, which can be done without rupturing the hymen, if the hymen is intact, which is not in about half the cases in this country; so many young girls use the syringe to wash out the vagina after each menstruation that the hymen is not very often found intact.

The hymen is now a thin organ compared with the hymen of the ancient Jew, in which it was a sign of virginity on which even her life depended. But this pessary can be introduced, if carefully done, without rupturing the hymen. Put the woman in the genu-pectoral position; particularly at first place the patient on the side, because in this position you can repose and examine the condition better than upon the back. Then, having found the condition, repose the uterus before introducing the pessary. Then lubricate this pessary, carry it in and get it behind the uterus. Now the little cylindrical virgin cervix fits into the pessary, the bulb of the pessary makes pressure upon the utero-sacral ligaments. This pressure pushes these ligaments up and makes them act as though they were shortened, and frequently sets up a little irritation; a little inflammatory exudation takes place and the ligaments become shorter.

This pessary is self-supporting. It goes up behind the uterus and comes down between the pubic rami, and the downward pressure of the uterus simply acts as a leverage power to keep the pessary in place. It lengthens the vagina a little and holds the uterus in place. In this class of cases I have seen many, many cases in which the displacement was completely cured by means of this pessary.

In some cases you will find this pessary will not answer, but the little Hodge pessary will do better. This has the objection that temporarily it spreads the vagina a little, but you must use it very small. The pessary that goes in so tightly that it seems it cannot come down is not the pessary to be used in these cases.

* Read before the Cincinnati Obstetrical Society.

We will take up another class of cases. Here is the Albert Smith pessary, which you know is a modification of the Hodge pessary. The modification consists in narrowing one end and dipping it down, and it was intended to act as a swing to lodge between the sacrum and the symphysis. Now we are dealing with a uterus that is larger and in which the retroversion is more pronounced than in the class of cases to which we have just referred. The uterus has not been enlarged to such a degree that its weight and the retroversion make it impossible for us to repose the organ. But the woman has the discomfort of pressure on the rectum, etc.

You carry this pessary up behind the uterus. The pressure then turns the pessary up so it is self-sustaining. This it does without fitting very closely. The treatment does not depend on the use of the pessary alone. The woman must go to the physician once or twice a week, the pessary must be taken out, the uterus reposed and the pessary replaced. You may do everything you could if the pessary were not in to improve the condition of the ligaments and change the woman's habits. You simply use this pessary as a crutch on a broken limb until it gets stronger. But do not let the pessary be too large, so as to stretch the vagina.

Let us now take another case. If the uterus is not fixed by adhesion, if it is simply a case of retroversion with the uterus not enormously enlarged, but a retroversion that will cause disability of the woman and become unmanageable later on, and the woman has no laceration of the cervix, what would be the best treatment? If the uterus is not too large and the case has not gone too far, I know of no operation in all surgery so absolutely beautiful in its results and so easy to do as shortening of the round ligaments, but if you shorten the round ligaments and do not put a pessary in to hold up the weight of the uterus for several months, until the ligaments have become strong and the uterus has become accustomed to its position, you will find that the displacement will not be cured.

It has been said that the round ligaments are intended as guy ropes. They simply keep the uterus from going too far, and do not act as direct supports originally. But after the Alexander operation this is improved. After the operation of trachelorrhaphy I am in the habit of using a pessary for two or three months. Repair the perineum and the cervix if needed, curet and pack if needed, and shorten the round ligaments if needed, and introduce the pessary at the same sitting and you will probably cure the patient, which you will probably not do if you do not use the pessary. In the virgin and in the cases I have mentioned of married women I have frequently seen a cure effected with the pessary.

In cases in which the uterus is very large it is very seldom that we get any benefit from a pessary as large as the one I now show you. When you cannot get the patient to submit to an operation, you can sometimes get a good deal of comfort by introducing a simple ring pessary of large size. I have in several of these cases gotten a great deal of comfort, where I could have the patient under observation, by introducing four or five pessaries of this kind, of different sizes, scattered around the vagina in different directions, in a case of complete procidentia. I have a woman now in Greensburg, Ind., who has been under my care for some time, who has not submitted to an operation, and with a hard rubber pessary of this character she has secured considerable comfort.

The so-called anteversion pessary not only will prevent the evil symptoms, but will help the woman to recover complete health in many cases; secondly, in a considerable number of these cases a permanent cure is secured; thirdly, where there are no adhesions and you have made a trachelorrhaphy if necessary, you succeed in the permanent cure of retroversion and the consequent descent of the uterus, with other treatment, by using a pessary that is placed behind the uterus and lengthens the vagina. The primary use of the pessary, therefore, is to restore the normal angle between the uterus and the vagina. The pessary should make pressure, but not sufficient pressure to cause damage of the sacro-uterine ligaments. If you carry this pressure too far, you may get a neoplasm there that is very disagreeable. A pessary made of block tin and bent to suit each case, is admirable and answers the purpose very well. Take a pessary in which the curve is not sufficient for your case, or

not long enough, you can place the pessary in hot water and with a pair of forceps shorten it up without shortening the curve.

The other thing I wanted to say is to never introduce a pessary at any time for anybody unless you have a guarantee that you can keep your eye on the case, and if they break that guarantee you are not responsible. Never let it be said you left a pessary ten or fifteen years, until it was cut out by somebody. If the pessary causes inflammation, take it out. If you have to tampon the woman before using the pessary, do so; and if you cannot use the pessary, don't use it. The right use of the pessary requires more skill ten-fold than to make a laparotomy, except some anatomical knowledge and coolness in using the knife.

ETIOLOGY OF MALPOSITIONS OF THE UTERUS.*

C. D. PALMER, M.D., CINCINNATI, OHIO.

There is very little new to say on this subject.

What is a uterine displacement? A position of the organ out of its natural place. Now, that definition, if it is correct, implies that the uterus has a natural place, and that when it is out of that natural place we have a displacement of the uterus. Everybody knows that the uterus is a *very* movable organ, and it is a wise provision of nature that it is such. If the appendage were diseased, as often as we see them now-a-days, and the uterus were not a movable organ, it would be much worse than it is. How could pregnancy go on if the uterus were not a movable organ?

The uterus changes position with the respiratory act, with alterations in the position of the body, with the functionating of the bladder and the rectum, by sexual intercourse, and by pregnancy. The position of the uterus is very different when the woman stands erect, when she sits, or when she lies down, and the position of the uterus is different when the rectum or bladder is full than when empty. All of these changes are within the bounds of health, so none of them could be called uterine displacements. Now, we cannot accurately estimate the normal posture of the uterus when we take the dead subject, in whom there has been a supposed normal position of the uterus during life. If that body is frozen, of course, there must be a change in the elasticity of the tissues. If you freeze any female body, and keep the subject on the back, you will have some change in position of the uterus take place. And no doubt the posture of the uterus is somewhat changed by the acts of parturition. The posture in the multiparous woman is somewhat different from that of a nulliparous woman. Now, everybody realizes how much the uterus is changed in its position by the various postures assumed during any local physical examination. How different is the position of the uterus in the woman when you put her in the horizontal posture, in the Sims' posture, in the Simon's or in the Trendelenberg posture. In my experience, there is no posture of the body which enables us so carefully to explore the conditions of the pelvic roof and the internal genitalia as Simon's posture. So convinced am I that I always use the exaggerated lithotomy posture whenever I desire to make a careful pelvic examination. And I can make a better examination at the third month of gestation in this posture to detect Heger's signs than in any other. I am so confident of, and depend so much upon, Heger's signs in this the third month that if I do not find these signs I am reasonably convinced that the woman is not pregnant, almost as much so as to the contrary when I hear the fetal heart-sound later on.

The determination of the normal posture of the uterus and what is an abnormal posture, implies a consideration of what holds the uterus in its normal and

* Read before the Cincinnati Obstetrical Society.

what puts it out of its normal posture. Of course, all the ligaments have much to do with holding the uterus in position; and, above all, the utero-sacral ligaments are important. I do not believe there is any other ligament comparable in strength in holding the uterus in position. They are composed of unstriped muscular fibres, and are but the continuation of the parenchyma of the uterus back to the sacrum. They pull, of course, the lower part of the uterus upwardly and backwardly, and, so acting, they naturally throw the upper part of the uterus downwardly and forwardly. That implies that the uterus is a lever of the first class. The power may be below or above, and the weight is at the opposite end, but the fulcrum always has a fixed point. This fulcrum is not at the junction of the body and the cervix of the uterus, but I think it is just above the vaginal vault. This part of the uterus is bound to the bladder as much as the bladder can hold it, and it is bound to the rectum in the same way. Here, too, the uterus is bound to the sacrum, and held by the vagina, the pelvic fascia, and the pelvic connective tissue and pelvic fat. The vagina has very much to do with holding the uterus in position, much more than some would think. Being attached to the bladder in front, the rectum behind, and to the sides of the pelvis, it must hold the uterus. You cannot have much displacement of the uterus without more or less distortion in place of the vagina; and, *vice versa*, there cannot be much distortion of the vagina without some displacement of the uterus. The way in which the pelvis is related to the perpendicular line of the body varies with different women. If a woman is erect, the brim of the pelvis will describe with the perpendicular line of the body an angle of 140° to 170°. The greater this angle is, the more does the weight of the abdominal viscera, particularly the intestines, come on the top of the uterus, and the back wall of the uterus. The more those weights are so directed the greater the predisposition to the anteversion of the uterus. Of course, the most potent influences in holding the uterus in the normal anteversion are the utero-sacral with the round ligaments. And, I believe, there is much in the so-called suction power of the abdomen. This suction is noted especially in women who have not undergone parturition, who have a round abdomen and an erect posture.

Now, what are the forces that tend to put the uterus out of posture? We ought to classify the causes under four general headings:

First, anythng which tends to increase the bulk and weight of the uterus leads to some displacement of the uterus. Congestion, passive hyperemia and chronic exudations into the uterine wall—in fact, anything, it matters not what, which augments the bulk and weight of the uterus at first, and, in time, some retroversion.

Secondly, relaxation and weakening of any of the supports, from lacerations, undue stretchings and diseases. It is almost impossible to have increased bulk and weight without some relaxation of support.

Thirdly, as everybody knows, any increased abdominal pressure from above may favor the displacement.

Finally, any increased traction from below may bring about a displacement.

It is impossible, it seems to me, for anybody to consider any cause which could not be classified under these headings. This classification simplifies the whole matter very much.

HYSTERIA.

There is perhaps no subject in medicine about which so many hazy notions have grouped themselves as about hysteria, a disease which seems likely to enjoy its curious misnomer for years to come. From its supposed association with the uterus it was quite natural that a popular conception should have gained ground that it was a disease peculiarly of women, an idea which is still deeply rooted, unfortunately, in the professional mind. Increasing knowledge, and the careful studies of the French school, have remodelled our ideas to a marked degree, until now we clearly recognize the existence of true hysteria, not only in men, but also in children, and, rarely, even in infants. Experience has amply justified such a widening of our views; but it should also have taught us a certain conservatism in our estimate of what constitutes hysteria, in its true sense.—*Boston Medical and Surgical Journal.*

CURRENT LITERATURE CONDENSED.

Alcoholism and the Penal Law.[1]

Inebriety is now generally regarded on the Continent as a mental disease requiring compulsory seclusion. In France there are not at present any asylums for the treatment of inebriates, but the question has latterly been forced upon public attention, and a proposal has been made to treat inebriety in ordinary lunatic asylums on the ground of its being a form of mental disease fairly amenable to therapeutic measures. In Germany, until 1891, jurists looked upon the legislative suppression of drunkenness as impracticable. In that year, however, the Congress of German Jurists recommended the establishment of compulsory asylums.

The oldest asylum for inebriates in Europe is that at Lintorf, in Rhenish Prussia, which was founded so long ago as 1851 It receives every year an average of seventeen patients who are employed in agriculture. The cures are estimated at 25 per cent., a proportion which would probably be increased if the patients could be detained until a permanent cure has been effected.

In Austria a law has recently been enacted providing for the compulsory detention of drunkards in special asylums for an average term of two years. The sentence of incarceration will be pronounced by the usual legal tribunals. Voluntary inmates are to be received on condition of their agreeing to the rules which apply to convicted patients.

In Hungary, Belgium, Spain, Portugal, Greece, Denmark, and Russia there are no inebriate asylums. In Italy an abortive attempt to establish an institution of the kind at Milan was made in 1886. In Holland there is one at Hooghullen.

In Switzerland a compulsory asylum for inebriates was established by the canton of St. Gall in 1890, the period of detention being from nine to eighteen months, and the Communal Council being the committing authority on medical evidence being furnished of the necessity of detention. There are in other parts of Switzerland six private asylums for inebriates, four for men and two for women. They are all organized as agricultural colonies.

In Sweden the "Gothenburg system" prevails; the prevention of drunkenness is aimed at by severe restriction of the sale of spirits. In Norway the "Gothenburg system" also exists, but there are two private establishments for the cure of drunkenness, and an amended code is now under consideration which will legalize asylums for the compulsory seclusion of inebriates.

In most of the United States the habitual drunkard may be detained for an average period of two years in one or other of the numerous inebriate asylums. "Prohibition" has also been adopted in seven States: Maine, Vermont, New Hampshire, Iowa, Kansas, and North and South Dakota. "Local option" exists in about half the rest of the States. The experience of the Americans with regard to prohibitive legislation as to alcoholism has, on the whole, been unfavorable.

In Norway, also, where on paper the system of prevention seems to be as perfect as could be desired, secret drinking is very rife, and, according to Dr. Pitcairn, the working-classes, unable to gratify their passion for alcohol in the ordinary way, are large consumers of ether, naphtha, and even spirit-varnish.

[1] Dr. J. J. Pitcairn, Proceedings of the Society for the Study of Inebriety (*Practitioner*).

A Plea for the Earlier Performance of Gastrostomy.[2]

The operation of gastrostomy is ordinarily looked on as such a formidable procedure that, even where it is strongly indicated, the general medical attendant usually views it with so much disfavor as to lead him to discountenance its performance and to trust to sustaining existence in irremediable dysphagia by nutrient enemata, although death by starvation under such circumstances is one of the most terrible experiences both to the patient and his friends.

[2] A. W. Mayo Robson, F.R.C.S., in the *Practitioner*.

The operation of gastrostomy has acquired this ill-repute, in the first place, because it was, and even yet as a rule is, customary to defer it until the sufferer is so reduced by starvation and so enfeebled as to be unable to withstand the shock of any operative procedure. Even if he does not die of shock, his healing powers are so impaired as to lead to failure in union and then to death from wound complications; or his assimilative powers are so impoverished that, even if the operation be immediately successful, death ensues from exhaustion. In the second place, when a direct opening is made into the stomach the fistula, in many cases, speedily enlarges and becomes patulous, leading to leakage of food and of irritating gastric secretion, so that the abdomen tends to become excoriated and the prolongation of life is attended with considerable discomfort.

When abdominal section was attended with a high rate of mortality, it was only natural that, if there was the smallest element of doubt as to the nature of the disease causing dysphagia, delay should occur in advising operation; but if it can be shown that early operation has no mortality or only a slight rate due to accidental or unforeseen complications, it may be justifiable to perform the preliminary or even the complete operation, knowing that the small opening will close voluntarily if the cause of the dysphagia should disappear or be cured by treatment.

The operation I am accustomed to perform is very simple, and only occupies a few minutes; it is a modification of the Ssbanijews-Franks method, but differs in several details. A vertical incision of about an inch and a half is made over the outer third of the left rectus abdominus, beginning three-quarters of an inch below the costal margin; the fibres of the rectus are separated, but not divided, to the extent of the incision, and the posterior part of the rectus sheath and peritoneum are divided together, the opening being an inch in length. A portion of the cardiac end of the stomach is then brought up through the wound and held forward by an assistant until four sutures are inserted into the base of the cone by means of a curved intestinal needle, thus fixing the visceral peritoneum of the stomach to the edges of the parietal peritoneum.

A transverse incision of half an inch is then made through the skin, one inch above the upper end of the first cut, and by means of a blunt instrument, such as the handle of a scalpel, a director, or forceps, the subcutaneous tissue is undermined so as to connect the two openings beneath a bridge of skin and subcutaneous tissue.

A closed pair of pressure forceps being introduced through the upper incision, as far as the projecting part of the stomach, grasps the most prominent part and draws it up to and beyond the surface of the second opening, where it is retained by means of two hare-lip pins. It should just fill the opening and should require no sutures. The lower opening is now closed by two silkworm-gut sutures, or by a continuous subcutaneous stitch, and the edges are dried and covered with a little collodion and gauze. If needful, the stomach can be opened at once by a tenotomy knife introduced between the pins, but, if possible, the opening should be deferred for twenty-four hours, when a barrier of lymph will have been thrown out.

After opening, a No. 8 soft catheter is inserted, to which a piece of tubing is fixed, and by means of a funnel the patient can at once be fed with warm milk and egg, or whatever liquid may be thought desirable. The catheter may be left in position for a few days, after which I find that it is easy to insert it whenever a meal is required.

If the patient is much exhausted, an anesthetic may be dispensed with and cocain employed, as the only pain is caused by the skin incision. Little or no shock is experienced, as although the peritoneum is open there is neither exposure of viscera nor handling of any organ except the portion of the stomach to be fixed, and I have never known peritonitis to follow. Where the operation is not deferred until "too late," death should not occur except from some accidental complication.

In one case, in which I performed gastrostomy nearly three years ago for what I supposed to be a malignant stricture, the patient gained his health and weight completely, and sometime afterwards he regained the power of swallowing a little fluid, not sufficient, however, to support life, and he still makes use of his gastrostomy opening for feeding purposes. He

has a mere dimple to represent the site of the stomach fistula into which he inserts, without the slightest difficulty, a No. 12 catheter "a boule." There is no irritation around the opening, and even after so long a time there is no leakage of food or gastric fluid, so that he does not find it necessary to wear any apparatus or to have any dressing applied.

Cephalhematoma.[3]

The fact that Henning had 230 out of 53,506 births, or 0.43 per cent.; Hofmohl 371 in 59,885 births, or 0.6 per cent., and that this is my first case in about 1,000 births, is the apology offered for this report.

Fourth infant Davis, male, aged eight days; was delivered on February 1, 1897, after a hard labor of twenty hours. The membranes remained intact until a few minutes before delivery. He is well-developed, weighs seven pounds; deeply jaundiced. Situated over the occipital bone, extending from the superior angle to superior curved line, is a swelling the size of a small orange. It is not discolored, not painful, but elastic on pressure. At the junction of the swelling with the bone a well-defined hard ridge could be recognized. The lump was not noticed until February 2, and has gradually increased until the present time.

March 8. Child five weeks old, general condition good. Jaundice has entirely disappeared. The swelling has decreased about one-third in size, still elastic and not painful on pressure. The hard line at its junction with the occipital bone has increased. No crackling could be produced over any part of the swelling by pressure.

The evident cause of this swelling has been pressure upon the occipital bone by the cervix uteri. It was not a forceps delivery, and could not arise from that cause. In some cases it is difficult to give a good cause, as this has occurred in breech deliveries.

The treatment has been *nil.* I must confess the temptation has been very great to empty the contents of the swelling. This course would be supported by Winckel, Olshausen and others. Henoch, Baginsky, Zweifel, Beidert, F. Koenig and others condemn any operative procedure as meddlesome so long as there are no signs of inflammatory reaction or of suppuration.

[3] Dr. James Franklin Hardy, before *Cincinnati Obstetrica Society.*

Tinned Food.

It cannot be doubted that certain foods preserved in tins afford an auxilliary and convenient source of food supply which cannot well be dispensed with, and, that being so, any suggestion calculated to ensure the wholesomeness of the food so preserved is entitled to every consideration. We do not believe that the mischief that now and again arises from the consumption of tinned food is referable to the presence of metal. Tin is a comparatively harmless metal, while the iron over which it is veneered is quite free from risk. The lead in the solder employed may, however, give rise to poisoning, but we believe that so well is the sealing process done that cases of this kind are rare. The dangers of tinned food generally arise from an inherent change in the food itself, and there is no doubt that the longer the food is preserved the greater is the chance of its being unwholesome, while, as is well known, as soon as the food thus preserved is exposed to the air certain changes rapidly set in, and for this reason the food should be partaken of as soon as possible after the tin is opened. Dr. Sykes, the medical officer of health of St. Pancras, makes what would appear to be a useful and practical suggestion in his annual report, which is that the law should provide that all tins containing tinned food shall have stamped upon them the date of tinning. Assuming that the correct date of tinning were thus stamped upon the tin the public would be able to judge in some measure of the wholesomeness of the contents, since it is reasonable to suppose that the enclosed food would not improve on prolonged keeping. We trust that the suggestion will be brought before the notice and consideration of the proper authorities.—*The Lancet.*

Acute mercurial poisoning (corrosive chlorid) is best treated by washing out the stomach after giving white of an egg, milk, water, or wheat flour and water freely. Morphin may be given if there is much pain afterwards.

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PHILADELPHIA, SATURDAY, SEPTEMBER 18, 1897.

EDITORIAL.

SCOUTS OF SCIENCE.

In an address before the British Medical Association at Montreal, M. Richet, of Paris, apostrophised the "scouts of science" and pleaded for more adequate general recognition of the achievements of those disciples of research who have been content to spend their lives in the laboratory to make discoveries by which humanity at large may profit.

The general body of physicians and surgeons may be not inaptly compared to a great army that wages war with the forces of disease and death. This army would be unable to achieve what it should perform if it were not for the scouts and skirmishers who march ahead and find where the enemy may be most vulnerable and where the best roads of attack must lie. Without this able and ever active corps at the front of the army, the great body must stumble along in an unknown country and waste a large part of its energy and force. Now and then some individual who makes a brilliant discovery is decorated and honored: sometimes he is ridiculed and condemned. But the greater number of the scouts, unnoticed by the outside world, work quietly, laboriously, unremittingly, indefatigably.

More than this, these scouts of science often thread their way through some unbroken wilderness, themselves ignorant whither their steps are leading. Every step must be measured for the benefit of those who may follow. This laborious progress must be charted accurately, and care must be taken to note every point that may seem open in the same direction. Sometimes it happens that when a long way has been traversed it ends suddenly against an insurmountable obstacle. The charts and bearings of the blind path alone remain to tell of the fruitless labor of years.

To-day there are scores of young men enrolled as scouts. In the German, Aus-

trian and French schools of medicine, the best methods of research are taught, and American universities and hospitals are eager to encourage the student to undertake original methods of investigation. It is because the corps of scouts has grown so large that the past few decades have been so rich in achievement and the army of science no longer marches in unknown territory.

Great surgeons and physicians have been much more highly esteemed by the general public than have been the laboratory workers, and Prof. Richet protests against the unwisdom and the injustice of such an estimate of work.

This is the appearance of the corps of scouts at its full-dress parade. Inspection in barracks sometimes reveals a different state of affairs.

Prof. Michael Foster, reviewing the progress of physiology during the recent meeting of the British Association for the Advancement of Science, at Toronto, says *The Practitioner*, spoke strongly of "the increasing risk of men undertaking a research, not because a question is crying out to them to be answered, but in the hope that the publication of the results may win for them a lucrative post. He also alluded to an even greater evil ahead—namely, the selfish withholding of new scientific truths, that the discoverer may make as much money out of it as he can. It has long been the just boast of the medical profession that knowledge acquired by any of its members was the common property of all. The introduction of the new serum treatment has led to the violation of this honorable tradition. New remedies of this kind are sometimes treated as trade secrets by their discoverers, and exploited by the ordinary methods of commercial enterprise. This new alchemy which makes gold out of serum is an ignoble business, and degrades those who pursue it below the level of the vulgar quacksalver, whose wares are, at least, mostly harmless."

From this it would appear that the scouts of science are not averse to foraging on their own account when not supplied with sufficient rations in the regular service. It is altogether probable that laboratory research obtains recognition and appreciation in the same proportion to merit as is accorded work in any other field.

There must be borne in mind the difficulty of discriminating off-hand between the scouts of science and the guerillas of science. The latter possess that cyclopean "I" which comprehends everything visible in the scientific world. There are other stigmata, but the most prominent, however, is the peculiar faculty for "unconscious assimilation" and appropriation of the ideas of others often regardless of intervals of time and space, correlated with a miraculous inhibition of memory of the times and occasions of receptivity

The longer the scientific guerilla pursues his career unchecked, the more discoveries, inventions, modifications and suggestions will he purloin to weave into the halter which finally hangs him for his depredations and consigns his reputation to the oblivion of shame. The genuine scout of science is worthy of honor and the highest esteem of the world at large, but the scientific guerilla is a rascal who invariably masquerades as a scout of science. The two must not be confounded.

Of the two new saints recently added to the calendar by the Pope, it is interesting to note that one was a member of the medical profession—Saint Antonio Maria Zacaria, who was born in Cremona in 1503. Among other medical saints in the Roman calendar beside St. Luke, the "beloved physician," are two others, Saint Cosmos and Saint Damian. The old College of Surgeons (Saint Come) in Paris was named after the former.

CORRESPONDENCE.

MR. EDITOR:—The first article in the August 14th issue of "The Reporter" interested me more than others, from the fact that about twenty years ago I began to advocate the same treatment for strained joints, viz., confining the joint immovable by means of a plaster-of-paris bandage. I have since followed the same plan of treatment, save that I vary my materials according to circumstances. In country practice one cannot always preserve plaster-of-paris, but one can easily carry two or three rolls of plaster-of-paris bandage in his surgical bag. I have used as a splint the leg of an old felt boot, which one can find in almost any farmhouse. I have also used heavy pasteboard for a splint. I soak it in water, mould it to the joint while wet, then line with cotton-batting and confine the improvised splint to the limb with three or four turns of a roller bandage.

This mode of procedure may seem superfluous to many surgeons, but I can assure such that they will be surprised to see how quickly a strained joint will recover mobility and usefulness under the treatment.

A. O. STIMPSON, M. D.

Thompson, Pa., Sept. 7, 1897.

THE PHARMACIST, THE SAMPLE BOTTLE, THE DOCTOR.

MR. EDITOR:—There is evidently an increasing tendency among physicians to prescribe the preparations of ambitious pharmacists and nostrum proprietors which is much to be deplored. Scarcely a week passes that the physician is not called upon by an agent who delivers "samples" and speaks his little piece upon the merits of his compounds. Within one week three such agents have visited my office, and, as I write, fourteen "sample" preparations are standing on my office table. The formulae of most of these are not given. I do not know their composition, but several are said to be composed of such well-known drugs as this, that and the other, combined with certain other remedies of a similar nature, which experience has found useful; and made palatable by the addition of aromatics, etc. With this imperfect and indifferent information, educated physicians are asked to treat their patients, and, to their shame be it said, many are doing so, more or less in all localities. If we were as ignorant of physiology and pathology as often we are of the exact remedies and doses we prescribe for combatting disease, we should be nothing but the veriest quacks. Having had opportunities for education in matters physiologic, pathologic and medical, wherein are we better than quacks if we treat our patients with proprietary preparations? The pharmacist, or the pharmaceutical chemist, as he often chooses to style himself, has been, is, and will be of very great service to the physician. There has been, within a decade or two, very great advancement in this department of medicine, for which physicians and patients are under great obligations. But the pharmacist should keep within his province, and devote his time strictly to the work properly within his department. If he oversteps this limit he should not receive the support of intelligent physicians. The more clear or perfect a fluid extract or tincture, or the more soluble or elegant a tablet, granule or pill, the better. For this we are thankful to the druggist. But we should administer them according to their indications, and combine them according to the diseased conditions we are called upon to treat. If we are unable to do this let us qualify ourselves for such service. Until the same hat fits every head, or the same shoe every foot, the same unmodified, stereotyped formula will not meet the demands of all cases of disease of a similar name or nature.

I fancy this method of prescribing among physicians has resulted, not so much from ignorance of the physiologic action of drugs of the materia medica, as because we often meet chronic and rebellious diseases in which medicines must necessarily have their limitations. The physician tries the usual remedies and fails to get the results to be desired, although he gets all he can reasonably expect. He reads the circulars and testimonials attached to his "sample" bottle, and, partly in desperation, partly because he has exhausted by perhaps imperfect trial the usual remedies, prescribes this sample or some other preparation of uncertain composition.

A few weeks ago I was called to a nervous, hysterical woman who had decided to change physicians. She had been told she had, among other things, cystitis, although there was absolutely no indication of disease of the bladder, except a local manifestation of a general hysterical condition. On her table sat a "sample" bottle of a preparation which had been delivered to the physician of the locality a few days previously. The formula of this medicine was not given—no one knew its composition, except that it was said to contain remedies that experience had found specially useful in rebellious diseases of the bladder and genito-urinary tract. And yet this medicine was left there by an educated physician—a graduate of Harvard!

A few days ago an educated physician, a graduate from one of the leading New York colleges, was called in a neighboring town to a patient suffering from chronic gastritis. He prescribed three different preparations, every one of which was proprietary, of none of which he knew the exact composition, and at least one of which, according to the meagre information given upon the circular accompanying it, was an unscientific conglomeration of incompatibles!

Look over the file of prescriptions in any drug store, and it is surprising how often A, B, C and D's preparations are specified. If the physician knows the exact formula of any given compound, and wishes to combine the component remedies in the same proportion as there given, and if he has confidence in the integrity of the manufacturer, well and good! But where no formula is given and the information is indefinite and misleading, we cannot, in justice to ourselves or our patients, afford to use such medicines. In Germany it is required by law that the exact formula of all patent medicines be printed in full on the container. As a result, very few such preparations are sold in that country. It is very unfortunate that we have not, in the United States, such laws in regard, not only to patent medicines, but to proprietary preparations as well. Medical men should exert such influence as they may be able toward producing like legislation.

The medical profession has never intentionally been prominent in aiding or abetting quackery, and the sooner the physician emphatically refuses to receive or use sample or proprietary preparations which do not reveal their exact formulae, the better. Scarcely a day goes by but physicians receive by mail letters, pamphlets or circulars from ambitious and avaricious drug houses or medicine proprietors announcing to the profession the superior value of their products. Some of them may be serviceable, but this is a matter which should be left to the individual judgment of the physician after he has learned how they are prepared and of what they are composed.

As honest, conscientious physicians, we cannot afford to be careless or indifferent in prescribing remedies. Let us study, if necessary, more carefully the dispensatories and materia medicas, and insist on knowing definitely what we are giving to our patients.

M. W. Knight, M. D.

Milford, Mass.

That "music hath charms to soothe the savage breast," serves to quiet and control the excited spirit and to steady the quaking courage of man, hath long been recognized. It is no wonder then that even now it is seeking position in applied medicine and is destined in the future to occupy more prominent place as a scientific factor in the healing art. The student and practitioner of the next century will witness the recognition given music, *per se*, in general medical teachings and college curriculums; while in its clinical application it will also doubtless aid the cure.—*Charlotte Medical Journal.*

ABSTRACTS.

TRANSFORMATION OF HEREDITY.*

In dealing with heredity, physicians as well as other biologists are apt to ignore general principles which, thoroughly established, are yet more honored in the breach (so far as their practical employment is concerned) than in the observance. Transformation of heredity has long been accepted in medicine as well as in other departments of biology. Some of the older clinicians recognized fully the central principle that it was not so much a specific disorder that was transmitted, as a constitutional deficiency which took the line of least resistance. Benjamin Rush pointed out that hereditary sameness of organization of the nerves, brain, and blood-vessels on which the predisposition to insanity depends, sometimes pervades whole families and renders them liable to this disease from a transient or feeble operation of its causes. According to Moreau (de Tours) "an incorrect conception of the laws of heredity looks for identical phenomena in each succeeding generation. Some have refused to admit that mental faculties were subjected to heredity because the mental characters of the descendants were not precisely those of the progenitors. Each generation must copy the preceding. Father and son must present the spectacle of one being, having two births, and each time leading the same life, under the same conditions. But it is not in the heredity of functions or of organic or intellectual facts that the application of the law of heredity must be sought, but at the very fountain head of the organism, in its inmost constitution. A family whose head is insane or epileptic does not of necessity consist of lunatics or epileptics, but the children may be idiotic, paralytic, or scrofulous. What the father transmits to the children is not insanity, but a vicious constitution which will manifest itself under various forms in epilepsy, hysteria, scrofula, rickets, etc. This is what is to be understood by hereditary transmission."

By heredity Morel (to whom Moreau (de Tours) bore the relation of Darwin to Wallace) "does not mean the very disorder of the parents transmitted to the children with the identical mental and physical symptoms observed in the progenitors. By heredity is meant transmission of organic disposition from parents to children. Alienists have perhaps more frequent occasion than others for observing, not merely this hereditary transmission, but likewise various transformations which occur in the descendants. They are aware that simple neuropathy of the parents may produce in the children an organic disposition resulting in mania or melancholia, nervous affections which in turn may produce more serious degeneracy and terminate in the idiocy or imbecility of those who form the last link in the chain of hereditary transmission."

According to Maudsley it is not "the insane variation that is inherited, but a native fault or flaw in the germ plasm of the stock."

According to Mercier "it is far too insufficiently recognized that the factor which is directly inherited is not insanity, but an instability or disordered arrangement of nerve tissue that allows insanity to occur, and that we must look for the inheritable antecedents of insanity not only in the insanity itself as existing in progenitors, but in all maladies which display evidence of undue instability or disorder of the highest nervous arrangement."

According to Krafft-Ebing "all the weakness of the nervous system and the propagative powers tend to neuropathy and thereby to all possible neuroses in the offspring."

It is possible to make heredity statistics more accurate by laying more stress in the inquiry not on insanity but on other factors. The last will be admitted as hereditary when the first is denied. Moreau indicated the lines along which such indications should be pursued when he divided the conditions due to degeneracy in a fam-

* Jas. G. Kiernan, M.D., Chicago, in *Medicine*.

ily into the following categories: First, absence of conception; second, retardation of conception; third, imperfect conception; fourth, incomplete products (monstrosities); fifth, products whose mental, moral, and physical constitution is imperfect; sixth, products specially exposed to nervous disorders in order of frequency as follows: Epilepsy, imbecility or idiocy, deaf-mutism, insanity, cerebral paralysis, and other cerebral disorders; seventh, lymphatic products predisposed to tuberculosis and allied disorders; eighth, products which die in infancy in a greater proportion than sound infants under the same condition; ninth, products which, although they escape stress of infancy, are less adapted than others to resist disease and death.

The transformations thus pointed out by Moreau have been experimentally demonstrated by Charrin and Gley, who for five years conducted experiments calculated to throw light on the influence on the offspring of parental reception of virus. Either the male and female have been inoculated with the bacillus of blue pus or of its toxins, or but one animal has been inoculated. The results have not been uniform. Most frequently there ensues sterility, abortion, or birth of progeny that die immediately. In rare instances the offspring survive; more rarely still are they healthy. There is considerable analogy between the degenerative effects of these cultures and the syphilitic virus, even when only the male progenitor is under its influence. The experiments go to prove that there is no special transmitted influence inherent in the toxin of syphilis, since other toxins have identical effects on the offspring and further demonstrate the influence on the progeny of the modified cell whose attributes are thus transmitted to the next generation.

To illustrate how much may be gained by careful examination in this particular I shall cite some researches of my own, pursued in regard to one family during more than two decades. The family originated in the Eastern States, but has branches south and westward. A farmer lived twenty miles distant from his nearest neighbor, whose only child he married. The daughter had led a lonely life till her courtship at the age of 28 by the farmer, then three years younger. The farmer married her for $200 after having impregnated her. He then found lead on his farm, and went to a city. A stock company bought his farm and launched him into the stock market, where he made money, more as cunning tool than adventurer. He became a high-liver, gouty and dyspeptic, and died from gouty kidney at 70. The couple had five children. The eldest, a son, became a "Napoleon of Finance," inherited his father's cunning, and died wealthy within the pale of the law. He married a society woman, the last scion of an old family. The second child, a daughter, was club-footed and early suffered from gouty tophi. She married a society man of old family who had cleft palate. The third child, a daughter, had congenital strabismus. She married a man who was suffering from irregular migrain. The fourth child, a daughter, was normal. She married a 30-year-old active business man in whom ataxia developed a year after marriage. The fifth child, a son, was ataxic at eighteen. The scions of the "Napoleon of Finance" and the society woman were an imbecile son, a hysteriac, a female epileptic who had a double uterus, a nymphomaniac and a society man who wrote verses. The cleft-palated society man and club-footed woman had triplets born dead, and a strabismic migrainous son who, left penniless by his father, married his cousin, the nymphomaniac daughter of the "Napoleon of Finance," after being detected in an intrigue with her. The migrainous man and strabismic daughter of the farmer stock broker had a sexual invert masculine daughter, a daughter subject to periodical epistaxis irrespective of menstruation, as well as chorea during childhood, a normal daughter, a deaf-mute phthisical son, a cloacal daughter, an ameliac son, a cyclopic daughter born dead, and a normal son. The sexual invert married the versifier son of the "Napoleon of Finance." The progeny of the normal daughter of the farmer stock broker and the ataxic man were a dead-born sarcomatous son, a gouty son with early tophi, twin boys paralyzed in infancy, twin girls (normal), a normal son, and a son ataxic at fourteen. The progeny of the nymphomaniac and her strabismic migrainous cousin were a ne'er-do-well, a periodical lunatic, a dipsomaniac daughter (who died

of gastric cancer), deformed triplets who died at birth, an epileptic imbecile son, a hermaphrodite, a prostitute, a double monster born dead, a normal daughter, and a paranoaic son. The ne'er-do-well married his epistaxic cousin. The gouty son of the farmer's normal daughter married the hysteric daughter of the "Napoleon of Finance." They had a son born with unilateral asymmetry, a prostitute, dead triplets, a male sexual invert, a color-blind daughter, and a normal son. The color-blind daughter married a paranoiac grandson of the "Napoleon of Finance." The progeny of the sexual invert and the versifier (who were soon divorced) were a periodical nymphomaniac who had some artistic and literary talent, and a son who died of gastric cancer. The scions of the ne'er-do-well and the epistaxic woman were a moral imbecile, a "bleeder," a stammering daughter who had uvula deformity, a deaf-mute cryptorchid, dead-born triplets, an infantile paralytic son, and dead-born quadruplets. The progeny of the paranoiac and his color-blind cousin were an exophthalmic daughter, an epileptic cryptorchid, a cleft-palated imbecile with a cloaca, dead-born quadruplets, an idiot boy, and a "bleeder."

A limitation of the malformation to the side affected by the arrest of growth has been observed. This unilateral predisposition, which occurs usually from heredity or intra-uterine cases, may be artificially produced. This condition, as Fere has shown, occurs in many systemic and infectious diseases which present a localization in relation to heredity or determined by an anterior morbid state of the nervous system. Sometimes these manifestations are limited to the side free from nervous trouble. Very often they attack the side which is the predominant seat of nervous symptoms. Fere points out that in chromatic asymmetry of the iris the iris is most deeply colored on the side most affected by nervous symptoms or arrest of development. He reports a localization of nervous troubles on the side most affected by harelip. Heuse has observed the coexistence on the same side of congenital cataract and of rachitic deformities of the skull and thorax.

General predisposition to systemic diseases of infectious type is often found associated with a hereditary state. It is not rare to find among these subjects the morphologic stigmata which characterize degeneracy. Alex. James, Ricochon, and others have shown that in addition to the ordinary stigmata, the biologic stigmata of degeneracy (such as plural and quickly repeated births) are frequent among phthisical families. The same phenomena often occurs in families whose scions are attacked with diabetes, obesity, chronic rheumatism, and gout. De Giovanni claims that particular nervous states exist in those predisposed to tuberculosis, whom he divides into erethists, torpids, and energetics. He points out that there exists a diminutive heart whose right ventricle has comparatively exaggerated dimensions, while the arteries have lessened calibre. The explanation of these phenomena, which seem bizarre to men biased by the conception that disorders breed true to themselves and that fecundity is a test of advance, is found in the principles forming the very essence of embryology. Von Baer showed that vertebrate embryos, all of a common type at their origin, assume successively a number of common forms before definitely differentiating. Dareste points out that supernumerary organs do exist in these common forms at one phase of embryonic life. This community of embryonic types and this last fact explains repetition of teratologic types in vertebrates. This community of origin, moreover, indicates that a higher vertebrate embryo contains in essence the organs and potentialities of all lower vertebrates, and that under the influence of heredity or accidental defect, an organ belonging to another species may develop, or an organ constant in a species may be lacking in an individual, without the necessity of explaining the immediate effects by distant atavism. Some anomalies found among degenerates recall types less elevated than man and very distant from him and even his lemurian precursor. The cyclopean monstrosity reverts to the eye type of the ascidian precursors of the vertebrates.

As Dareste has shown (a fact corroborated by Spitzka), embryologists can imitate natural teratologic malformation of the nerve centers by artificial methods. By wounding the embryonic and vascular areas of the chick's germ with a cataract needle, malformations are induced vary-

ing in intensity and character with the earliness of the injury and its precise extent. More delicate injuries produce less monstrous development. Partial varnishing or irregular heating of the egg-shell in particular results in anomalies comparable to microcephaly and cerebral asymmetry. The latter fact (showing the constancy of the injurious effect of so apparently slight an impression as the partial varnishing of a structure not connected with the embryo at all directly) suggests the line of research to be followed in determining the source of the material and other impressions acting on the germ. What delicate problems are to be solved in this connection may be inferred from the fact that eggs transported in railroad cars, and subjected to the vibration and repeated shocks of a railroad journey, are checked in development for several days. A more delicate molecular transmission during the maturation of the ovum, during its fertilization, or finally during embryonic stages of the more complex and therefore more readily disturbed and distorted human germ, accounts for the disastrous effect of insanity, emotion, or other mental or physical shock of the parent on the offspring. The cause of the majority of cerebral deformities exists in the germ prior to the appearance of the separate organs of the body. Artificial deformities produce analogous results because they imitate original germ defects, either by mechanical removal or by some other interference with a special part of the germ. Early involvement of the germ is shown by the fact that somatic malformations in the hereditary psychoses often involve the body elsewhere than in the nervous axis. The stigmata of heredity —defective development of the uro-genital system, deformities in the face, skull, irregular growth of the teeth, misshapen ears and limbs—owe their grave significance to this fact. Like deformities of the brain, these anomalies are also more marked and constant with the lower forms of the hereditarily based systematized perversions of the mind than the higher. It is easy from these results to understand how far and how the nervous system has its part in the disorders of general development. It can easily be understood how the individuals who present most deformities are equally those who suffer from most decided disorders of the nervous system.

As already indicated, these disorders may be transformed into each other and coexist as well. Moor has observed a polydactylous imbecile girl. Her grandfather and two uncles were also polydactylous, the grandfather and one uncle being insane. These defects are not always a simple expression of anomaly, but create local predisposition to disease. Hernia, for example, is a defect often due to imperfect evolution. Le Double has shown that in cases of inguinal hernia epididymitis coming on in the course of blenorrhagia almost invariably occurs on the side of the hernia. In certain genital anomalies (macrorchidia, microrchidia, ectopias, and testicle inversions) blenorrhagic inflammation almost always occurs at the seat of the anomaly.

From these general principles it is easy to understand the law of transformation of heredity. The material on this point existing prior to the time of Moreau (de Tours) had been excellently utilized by him. Doutrebent (ten years later than the appearance of the work of Moreau) reported the following family history: First generation: father intelligent, became melancholic, and died insane; mother nervous and emotional. Second generation: ten children; three died in childhood; seven reached maturity as follows: daughter A. melancholiac; daughter B. insane at twenty; daughter C. imbecile; daughter D. a suicide; son E. imbecile; son F. melancholiac; son G. melancholiac. Third generation: ten children; five died in childhood, one is deformed and has fits of insanity, one is eccentric and extravagant, two are intelligent and married, but are childless. B. leaves no issue. C. has one child, a deformed imbecile. D. has three children; one is an imbecile, one died of apoplexy at twenty-three, and the third is an artist described as "extravagant." E. has two children; one died insane, the other disappeared and is supposed to have committed suicide. F. is childless. G. has one child who is an imbecile.

A case of transformation much less extended than this has been reported by I. H. Neff of the Pontiac (Mich.) Insane Hospital. The case was that of a paranoiac who had a deaf-mute mother and

two maternal granduncles insane; one brother and a sister insane; one brother peculiar; two brothers deaf; one child of each brother deaf; one maternal aunt and one maternal cousin similarly affected. In another case reported the paternal grandparents were cousins. The father was always regarded as nervous. One brother of the patient has headaches, is considered feeble-minded, and has chorea. Another brother and two sisters have eye disorders and wear glasses. Two children of the maternal uncle are imbecile and have extreme difficulty with eyesight. Two other cousins are weak-minded and have eye disorders. Neff reports an extended family history covering five generations. The first ancestor noted died in 1796 of "dropsy." His wife died in 1794 of phthisis. They had thirteen children, the history of but three of whom is known. One died at the age of 41 of a "frenzy." Another married a woman whose brother married his sister. They had children. His sister and his brother-in-law had twelve children. The son of the one married the daughter of the other. Both died of phthisis. Both were separated from each other and from their children for many years before death. The histories of eight of their children are known. One of these was a phthisical idiot; girl was insane; boy was killed in battle; another boy was insane; three girls were phthisical; one boy was a deaf-mute. The brother of the mother of these last children committed suicide. He had four children, of one of whom nothing is known. Another became insane and left no progeny. A second, a neuropath, left one child who became insane. A third was deformed and left one child, who also became insane.

In my genealogic table appeared some cases of cancer. The trend of pathologic thought, after swaying between the doctrine of the microbic origin of neoplasms and the doctrine of heredity, is finally settling down to a modification of the doctrine of Cohnheim, that these are due to a local arrest of development, and hence of hereditary or at least congenital origin. Strahan has illustrated excellently transformation taking the direction of cancer in the case of the father of a family who died of gastric cancer at 66 and who had a brother who cut his throat at 56. The mother died of a "fit" at 54. This pair had seven children. One son died of gastric cancer at 58; one son died in infancy of convulsions; three daughters died of phthisis; one son was epileptic; and one apparently normal son. B. W. Richardson had under care a young man who married a woman whose parents had died of phthisis, and whose ancestry contained numerous victims of cancer. This couple had five children who died after adolescence. The first died during infancy of lupus; the second died of phthisis; the third and fourth of cerebral tuberculosis; the fifth, who lived longest, died at thirty-six of cancer.

Strahan gives three generations of another family. In the first generation was one suicide, one victim of gastric cancer, and one victim of epilepsy. In the second generation was one victim of gastric cancer who left five children. One died of infantile convulsions; one phthisical man married but had no children; another phthisical man had no children; the third, a victim of phthisis, died before being married; the sixth member of the same generation was apparently normal and had seven children; another died of cancer; the eighth member of the same generation was a cryptorchid epileptic who was twice insane, and married but left no issue.

While there is nothing strikingly unique in these cases, they indicate how much of interest is lost by failing to register facts not in immediate relation to direct heredity. Undoubtedly commercialism often interferes with such registry. Frequently abuse of the reflex hypothesis for commercial reasons leads to deliberate ignoring of such facts. Most records, however, fail to be made because of the honorable desire on the part of physicians to preserve patients' confidence and to prevent reflections upon them. Were patients' names, initials, and photographs—other than of the special deformity—suppressed (as they should be) in case records this difficulty would not arise. The desire to lend needless *vraisemblance* to case reports leads of necessity to suppression of important facts in regard to heredity, especially if that heredity bear upon mental or moral abnormality. In the hope of stimulating case records of the kind indi-

cated in the genealogy given the present article has been written. The existence of such records in the histories of aristocracies has been utilized by Jacoby, and also that of the family whose varying lights and shades of heredity Zola utilized in his Rougon-Macquart series. His realism has blinded sociologists to the optimistic lesson he has taught as to degeneracy and environment. The ancestress of this family is the product of aristocratic degeneracy, the heiress of a dying line. A most pathetic picture is that in which the "bleeder" imbecile great-grandchild expires from hemorrhage at the feet of his insane centenarian ancestress, who is unable to help him because of the mental stupor resulting from shock due to the sight of hemorrhage, which recalls to the old woman the terrible scene of the shooting of a grandchild by the emissaries of Napoleon the Little, who were killing the second French Republic and its defenders at one and the same time. The student of heredity who can stand outspoken candid realism will find some excellent studies in transformation of heredity in this series.

One transformation of heredity is a large family. This is assumed very frequently but erroneously as decided evidence against degeneracy. Not only is this not true, but the reverse under the most ordinary observation is the fact. Indeed, as Herbert Spencer has shown, with increase in growth and specialization, decrease in the explosive manifestations of life must occur. Among these explosive manifestations in early biologic history is the function of reproduction which is common to all cells. With advance in evolution the functions of cells become specialized and the extent of reproductive power is decreased. This specialization Spencer designates individuation. In degeneracy the organism returns to the lower type and consequently tends to a reversion of individuation. From this results the plural and frequently repeated births already pointed out as a biological stigma of degeneracy in the phthisical. The same condition obtains in other degenerates. Valenta had under observation two epileptics (mother and daughter) who illustrated very decidedly the biologic stigma to which reference has just been made. The mother had thirty-eight children—six times twins, four times triplets, and twice quadruplets. The daughter at the age of forty had thirty-two children; three times twins, six times triplets, and twice quadruplets. Ninety families of degenerates coming under my own observation averaged eleven children each. Triplets, quadruplets, and twins were more than ten times as frequent as among the population taken as a whole.

The occurrence of large families should hence be regarded not as an expression of advance but as an expression of degeneracy. The teachings which have been entirely too prevalent as to the status in evolution being determined by progeny have cultivated a factor of degeneracy which, when it occurs in a family, must be regarded merely as one transformation of malign heredity. Another biologic stigma of degeneracy on which considerable stress is laid as an evidence of health is the occurrence of one instance of old age in a family of short-lived people. In Morandan de Monteyel's studies of the biology of degenerates such instances were remarkably frequent. In this instance, while there is an expression of healthy atavism, there is also an expression of degeneracy which, predisposing the organism to yield to slight causes of disease, thereby prevents it from being deeply affected by them. On the other hand the absence of any deep emotional feeling enables such an organism to ride through worry like a cork through an ocean storm, and thereby to survive.

Necessity of Cover During Sleep.

The object is simply this: Nature takes the time when one is lying down to give the heart rest, and that organ consequently makes ten strokes less a minute than when one is in an upright posture. Multiply that by sixty minutes and it is six hundred strokes. Therefore in eight hours spent in lying down the heart is saved nearly five thousand strokes, and as the heart pumps six ounces of blood with each stroke, it lifts thirty thousand ounces less of blood in a night of eight hours spent in bed than when one is in an upright position. As the blood flows so much more slowly through the veins when one is lying down, one must supply then with extra coverings the warmth usually furnished by circulation.—*Every Where.*

SOCIETY REPORTS.

OBSTETRICAL SOCIETY OF CINCINNATI.

OFFICIAL REPORT.

Meeting of March 11, 1897.

The President, RUFUS B. HALL, M. D., in the chair.

E. S. MCKEE, M. D., Secretary.

DR. JAMES FRANKLIN HEADY reported a case of

Cephalhematoma.

(See page 364.)

DISCUSSION.

DR. WM. GILLESPIE: I was rather surprised to hear Dr. Heady speak of cephalhematoma as so rare. My experience has not extended over a thousand cases by a good deal, and I have seen four cases of tumor of this character. In the first case there was separation. The periosteum was pulled loose from the bone. I opened it and washed it out and had a very good recovery. The three cases I saw afterward I simply punctured and covered with collodion, and had very good results. The books, however, say that is not good treatment, and we should not puncture but let absorption take place. In the first case I had used forceps, and no doubt the bruising had something to do with the separation. I believe there is really a larger percentage of cephalhematoma than we are led to believe, and that it is often mistaken for a caput succedaneum. It is located in the same part of the head as caput succedaneum, and the mistake might easily be made.

DR. M. A. TATE: Like Dr. Gillespie, I was surprised to hear that so few cases occur. I have seen two cases. One was a double cephalhematoma and the other was one I saw not long ago in Newport. I let them alone and a good recovery resulted in both cases.

DR. THAD. A. REAMY: I have seen a number of these cases and have treated them by both methods. I never open them at first, but have opened them subsequently. I have never seen a case that did not recover. The condition, of course, is almost invariably associated with a protracted labor, usually due to the causes that have been indicated by the author of the report. I think in most instances it is quite well to leave them alone. In many cases the contents are gradually absorbed; and, as even very simple operations on very young children are attended with more danger than in children who are older, I think it is well to wait usually and see if absorption will take place.

DR. JULIA W. CARPENTER: I have had experience with but one case, and that recovered without any interference; it passed away in a comparatively short time. The size was that of about half a good-sized orange.

DR. C. B. SCHOOLFIELD: I have had about five or six cases of cephalhematoma in my practice, and in all of them except one I used the let-alone treatment, and they all recovered promptly. The first case I had I punctured and squeezed the blood out, and it promptly returned, and I did not puncture a second time. I do not think puncture is indicated unless there is suppuration or something of that sort.

DR. G. S. MITCHELL: I recall but one case that has occurred in my practice, and in that case the expectant plan of treatment was carried out. Like one of the gentlemen who has spoken, I am fearful that many cases of so-called caput succedaneum belong to the category. It is a little surprising to me in the cases reported that this condition of affairs could have occurred, owing to the fact that pressure was not very great and the membranes were not ruptured until shortly before delivery, which would preclude any very great amount of violence to the head. The case that occurred in my own practice was one of tedious and difficult delivery, a forceps case, in which the membranes had ruptured early and there was considerable disproportion between the pelvis and the head. The forceps were on for at least an hour. The swelling lasted for a number of weeks and finally disappeared.

DR. W. H. WENNING: I came in rather late, but from the remarks I infer the paper was upon hematoma. From my own practice I would infer that this condition is somewhat rare, for I have never seen a case of caput-hematoma. As regards the treatment, of course I can only speak from what others say, and I would think the let-alone treatment would be the proper thing in the first place, and wait for absorption; if that does not occur, I do not see why we should not open the tumor and hasten the disappearance.

DR. C. D. PALMER: I have seen a number of these cases, but have never seen one that did not spontaneously recover.

DR. E. S. MCKEE: I have had two cases of cephalhematoma. The first was a very rare and interesting variety, viz., intra-cranial. Breech presentation. Body expelled promptly, but head was slow enough to cause some apprehension before successfully delivered; xiiipara. Child well developed and hearty. Saw it every day, and it seemed to be doing well. On the fifth day was fretful, took convulsions and died on the sixth day. Post-mortem twenty hours after death. Found skin normal, but between scalp and pericranium found a large effusion of blood, coagulated, extending over a greater part of the left parietal bone and not surrounded by any bony ridge. Opening the skull found the bones in a perfectly normal condition, the dura mater healthy, but in the cavity of the arachnoid and corresponding in position to outer tumor found a large and extensive clot of blood, causing a depression of the brain in its deepest part, which was one inch to the left of the posterior fontanelle. Effusion larger than externally, extending down to the foramen magnum. No ruptured vessels could be found. Other parts normal. Cause of death, intra-cranial cephalhematoma. This mother had three other children to die in convulsions. Might they not have had intra-cranial cephalhematoma, and might there not have been an inherited tendency? Had this case been diagnosed antemortem would trephining have been justifiable?

The second case occurred about fifteen months ago, and was of the ordinary extra-cranial variety. I ordered pressure and the tumor was dispelled. The child is now living and well. This was a rapid delivery, the child being born before my arrival. Mother a I-para.

DR. GILLESPIE: I would infer from what I have heard this evening that cephalhematoma is generally regarded as coming on after the time of birth. The cases I have seen surely existed before birth, because the rim of callus thrown around the tumor existed at the time of birth. I think it is Charpentier says true cephalhematoma is due to pre-existing conditions, and not to a difficult labor at the time of birth.

DR. C. D. PALMER read a paper entitled

Etiology of Malpositions of the Uterus.

(See page 360.)

DR. THAD. A. REAMY read a paper entitled

Treatment of Malpositions of the Uterus by Pessaries.

(See page 358.)

DISCUSSION.

DR. G. S. MITCHELL: I was very much interested in the remarks of the second speaker, and I am certainly heartily in accord with his views in regard to the pessary. I know of no instrument that gives more satisfaction; I know of no procedure which affords greater relief in a large number of cases than the introduction of a properly adjusted pessary. Like the gentleman, I don't regard the pessary as a curative instrument in many cases, although I have frequently seen a radical cure follow the use of the pessary with other local treatment without any operative interference. I know there are gentlemen, whom we class among gynecologic surgeons, who have no use for the pessary. These same gentlemen, with the same propriety and for the same reason, might say there is no use wearing a truss, and yet we do know a properly adjusted truss sometimes results in the cure of hernia, simply because it sets up an irritation that induces an inflammatory process that cures it. And the pessary, by causing a little inflammation, often cures these cases. Thus the pessary sometimes causes what the cellulitis sometimes does, and we have a pathological infection of the uterus. That is what we have by the method which has been carried out in the operative procedure described by Dr. Hall; that is what we have by the so-called Kelly method and the so-called Alexander method of shortening the round ligaments. Of course, if we have a prolapsed ovary or an inflammation about the uterus, a so-called parametritis, endometritis or perimetritis, we would not think of introducing the pessary. No one would introduce the pessary where there is already an inflammatory process. There is nothing will cause a heavy, baggy uterus, already in a state of congestion, to diminish its size better than holding it in proper position by a well-adjusted pessary. In the majority of these cases, in which the pessary is to be introduced in retroversion in multiparae, where there is more or less vaginal lesion and more or less injury to the pelvic floor, of course it is proper to make a vaginal colporrhaphy, an operation for cystocele, or trachelorrhaphy, and after all this is done as an adjunct it becomes necessary oftentimes for a number of months, sometimes for a year, to introduce a pessary and hold the organ in proper position.

I have not had any personal experience with vaginal fixation, but I am satisfied that the men who first advised the so-called Duhrssen, of Berlin, operation have discontinued it. It strikes me the operation is not at all proper. Notwithstanding the gentleman has recommended it so highly tonight, I do not believe it is a proper operation; I know any operation could be performed by him with ease, he is such a dexterous operator, but the ordinary operator would find this operation one of more or less difficulty. I can hardly conceive of the operation not being attended with danger. After we have made the colporrhaphy and operated on the anterior wall, or whatever is necessary, it seems to me the best radical

operation is to shorten the round ligaments. Alexander says one should not attempt this operation until he has made five or six such operations on the cadaver. It is a very difficult matter to pick up the round ligaments. The danger from hemorrhage is very trivial; and as to the formation of scars, that argument amounts to nothing at all.

DR. EWING RICKETTS: When the question is asked, what is the normal position of the uterus, it can be answered a good deal in this way; what is meat for one is poison for another. The question of malposition is one in which I think there is a good deal of unnecessary scientific speculation. In regard to the question touched upon by Dr. Reamy, that is the version backwards, in which he spoke of the distended bladder with the constipation habit and the disposition or indulgence in matters pertaining to society, he did not cure that patient until he had restricted or cut short, so to speak, the distended bladder business and had taken her out of society, and I believe the same end could have been secured by taking the patient out of society and regulating her habit, without the use of the pessary. These patients many times, in connection with relief of vicious habits, are often greatly relieved by being placed upon their face, especially at the menstrual time, for a specified time. I cannot understand yet why so much is claimed for the pessary. I think that, theoretically speaking, it is very nice, but it is a good deal like a man lifting himself over a fence with his own boot-straps; and for a man to make the statement that the pessary is of itself riding easy, so to speak, without making undue pressure on one or two sides of the vagina, is a mechanical measure I cannot understand. It has to have bearing somewhere for the uterus to ride, so to speak. The question of surgical interference for posterior versions, as suggested by Dr. Hall this evening, while I know it has been claimed by some gentlemen that the originator of this operation has discarded it, yet I do not think he has discarded it entirely. It don't make any difference about that; any gentleman who could have seen the operation in the hands of Dr. Hall as I have, and could have seen the result of those cases and the freedom from pain those patients have now in comparison with the pain they had previous to the operation for years, I am sure would be ready to give due credit to the operation. I do not care who goes back on the operation, I think we have a right for observation in Cincinnati as well as anywhere else. Whether this operation is to be the operation or not, it certainly is going to do away with the pessary. As to the position of the uterus as described by my friend Dr. Reamy, which must be tilted forward in order that we may not have procidentia, of course that is correct. I do not think the anteversions amount to much, as a rule; the retroversions are the ones we usually have to deal with. When these cases cannot be cured by relieving the distended bladder and placing the patient on her face, when anything is demanded I think the operation devised by the German gentleman is the one that will be considered more in the future than in the past. And you will be surprised how readily you can turn the uterus out, and the danger of hernia is practically *nil*.

DR. CARPENTER: I was glad to hear the favorable words from one of such experience as Dr. Reamy upon the successful use of properly adjusted pessaries. We always like to hear something commended that we have succeeded with ourselves, and it has always seemed to me that those who condemn the use of pessaries wholesale are ordinarily influenced by seeing those used which are too large and where damage was done. Too many persons, especially those just graduating, have the idea that a pessary must stretch the parts in order to give support, and that is one thing that produces many bad results. A properly adjusted pessary is very movable, and will not stretch the parts. If one will try it in that way in suitable cases good results will be secured. Whenever I read anything on the subject of the normal position of the uterus I wonder where in this age they find the individuals in whom they can find that out—that is, in the adult. If you take a little child, of course you can get many of those who are in a state of nature; but when you come to the absolutely normal position in the adult in this age, I do not know where you can find it, unless those investigations are made among Indian women who are in a state of nature. You can find out what the *usual* position is, but whether that is *natural* or not is another thing, because in every nation the clothing of women is of such a nature as to make pressure from above downwards, and whether the organs are now in their absolutely natural position or not is a thing to be very much questioned.

DR. WENNING: It has been said with a good deal of truth that a pessary in a good many instances is a necessary evil, and certainly it is an evil in the hands of a great many individuals. I make these prefatory remarks because we all encounter cases in which the pessary has done much harm, but I think it it is because so many have not the proper idea as to what the pessary is intended to accomplish. We should not simply introduce the pessary and send the patient on without further care. I have very little to add to what has been said on this subject. I am heartily in accord with what the second speaker said about the pessary with one exception, and that is the use of the ring pessary, which does what a pessary above all things should not do, and that is it stretches the vagina. I have seen more ring pessaries in patients in whom the pessary was introduced by

practitioner not accustomed to introducing a pessary than any other kind of a pessary. I need hardly mention the fact here that a pessary must exactly fit. If a pessary is too small it will do no good, and if it is too large it will stretch the parts. I think it requires greater nicety to properly introduce a pessary than to make even many of the gynecological procedures, and it is only one who is accustomed to examining the uterus who can say what kind of a pessary should be used.

One thing was not mentioned in the anatomy, and that is this: In my experience no pessary of any kind will do any good unless there is a normal rigidity of the uterus. When there is a pathological softening the pessary does often more harm than good. I think the uterus itself is the lever which is brought into requisition. If the cervico-vaginal junction is softened, if there is a pathological flexion, you invariably increase the trouble. So I think there must be a normal rigidity of the uterus before you can cure a version.

Now another thing as regards the determination of whether a pessary is properly placed or not; of course, you all understand that for retroversion the proper position for the introduction of the pessary is the Sims position, so that you are sure you have the pessary in the proper position. Of course, it is understood that the pessary cannot correct the position of the uterus; the position of the uterus must first be corrected and then the pessary introduced. I first put the patient on her back and have her bear down, and then if I find the pessary is properly placed I examine the patient in the standing position and have her bear down, and am thus enabled to determine whether there is a proper mobility of the pessary. If the pessary is too small, it will slip down into the vagina; and if the pessary remains fixed too tightly above, it is too large.

Then there is another thing to be taken into consideration, and that is the abdominal pressure. I never have a woman wear a pessary for retroversion who has borne many children without having her wear at the same time a well-fitting abdominal supporter. I believe the relaxation of the abdominal muscles forces the uterus down on the pessary, and this continued pressure in the erect posture is likely to cause the trouble to return again. The proper adjustment of an abdominal supporter, which will aid the abdominal walls in holding up the weight of the intestines is very important.

Dr. Schoolfield: I feel very much obliged to the last speaker, especially for his remarks about the use of the pessary. I have had very little success with the pessary, and am not a strong advocate of it. His remarks, though, in regard to it, I think are very applicable, and I think, too, that unless a pessary does fit as accurately as a shoe should fit it does no good. I think too many times the pessary is too long. An ill-fitting pessary, and a great many of them are ill-fitting, being left in the vagina produces a great deal of injury and no good. I remember some time ago removing a wooden pessary, a round ring, left in the vagina something over a year, and it had so imbedded itself I had to use an instrument and break the pessary in order to get it out. Of course, that results from the lack of observation of the patient after the pessary was put in.

The question of the operations for the relief of retroversions is an interesting one, and those that restore the organ by replacing the conditions as nearly as possible to the natural are the ones which will do the most good. It seems to me the shortening of the round ligaments according to the Alexander method is the nearest to the physiological way of replacing the uterus in its proper position. The Mackenroth-Vineberg operations of replacing the uterus through the vagina will replace the uterus, but the drawing the uterus forward under the bladder, it seems to me, would cause a great deal of bladder trouble, and it would also cause the cicatrization of the anterior portion of the uterus, and would interfere with gestation in the same way that the ventral fixation does. I believe that ventral fixation is a delusion and a snare. I have done it and I have seen the results of it, and we see the reports of it in the journals, and I believe those who do the most of it are not the ones best satisfied with it. A good many operators who a few years ago did ventral fixation, are now abandoning it. Alexander himself, and Edebohls, who has operated perhaps the most frequently of any operator in this country by the Alexander method, seem best satisfied with their results. I have never seen the operation spoken of by Dr. Hall, but it seems to me that next to the Alexander operation it is the most plausible and reasonable method that we have, because it is a shortening of the round ligaments. But it seems to me that fastening the round ligaments to the vagina is drawing the uterus too much forward and interfering too much with the functions of the bladder. It seems from a physiological standpoint that the Alexander operation would certainly be much more desirable, although it is probably as difficult, if not more so, than the Alexander operation.

Dr. C. L. Bonifield: In regard to the use of the pessary, I think a mistake that is very frequently made which interferes with getting good results from the use of the pessary, particularly in retroflexions, is that the curve of the pessary is too sharp; in fact, they are usually too sharp when we buy them. They do not give pressure in the proper place, and while we may push the uterus up in the pelvis, we do not straighten it out. I have gotten very good results

by straightening the pessary somewhat. The Hodge pessary I have found very much inclined to turn around and get crosswise in the vagina.

In regard to vaginal fixation, I was in Berlin at the time Duhrssen and Mackenroth were interested in this operation. I purchased a sound Duhrssen devised to bring the uterus forward, and brought it home with me, but have not used it. I was at first thoroughly determined to do the operation, but upon considering it further I have not done it. My lack of familiarity with the German language rendered it impossible for me to get all out of what was said by Duhrssen and Mackenroth. Mackenroth made his incision longitudinally with the vagina, while Duhrssen made his transversely. I saw Mackenroth do the operation, and also saw Martin do it after the method of Mackenroth. I saw Duhrssen also do the operation. Duhrssen was in the habit of doing it in his out-door clinic. After the operation the patient would wait in an outside room for two or three hours, and then he would pay her expenses home in a second-class cab. I examined several of these cases after two or three months, and the uterus certainly was anteflexed, but it possessed that disagreeable feature that the uterus always has after being fixed by any operation—that is, it is fixed and not freely movable as it naturally should be.

DR. HALL (in closing): I believe where we differ largely on the pessary is the selection of the proper cases in which the pessary will do any good. If we do that we can relieve many of our patients, and the pessary then is just what the truss is, a makeshift for comfort, for temporary relief, and those of our professional brethren who do not use the pessary at all do not use all the appliances at our hand for the best interests of his patient.

Now a word in defense of my position in the paper. As to the gentleman who abandoned the operation, I will say he abandoned it on the same ground that Leopold and that school abandoned their operation, because there is too firm a fixation of the body of the uterus to the abdominal wall. Interference with the rise of the uterus in pregnancy followed the early operations. The new operation, and the one I was trying to describe to-night, is not such an extensive fixation. When you are through the operation it is brought forward and tacked, so if the woman becomes pregnant the uterus can enlarge just as if the woman had not been through the operation. One man reports seven cases in which the women went through pregnancies all right. I believe if any of my patients become pregnant they will go through as well as anybody, as far as the operation is concerned. I have made the Alexander operation many times, and theoretically for bringing the uterus forward it is all right. Practically it is all right. It is the best operation for bringing the uterus forward for that purpose alone; but the operative danger between the two operations is markedly greater in the Alexander operation. No one who has seen the results of the Alexander operation will doubt that there are a good many cases in which hernia follows this procedure, and a woman with two hernias is about as bad off as a woman with retroversion. I believe if my wife had a retroverted uterus, before I would let her have an Alexander operation, with the danger of hernia, I would prefer to let her have the retroversion, and that is what I advise my patients. Of course, in a lean subject there is less danger of hernia than in a fat subject. Yet if the operation I have described this evening will do the same thing, as far as the result is concerned, it is to be preferred to the Alexander operation, even though it is more difficult than the Alexander operation. The man who is used to doing this kind of work will do it all right. And you do so little injury to the woman by that operation. Not one of the patients I have operated upon in this way has complained of pain and discomfort nearly as much as for a repair of the cervix or of the perineum.

DR. REAMY: The very intelligent remarks of Dr. Wenning make it necessary for me to call attention to one point. The doctor is correct in his statement that the pessary does not act as a lever on the uterus, but the uterus calls into requisition the lever action of the pessary. The remark of Dr. Bonifield I have verified hundreds of times. This pessary is about the correct shape; it is almost straight. The other remark I wanted to make is in reference to the shortening of the round ligaments by the Alexander operation or some modification of that procedure. I am sure any man who thinks this operation is difficult is someone who got his conception from hunting for the round ligaments after they are flattened out. If he will go down between the sacrum and the symphysis and make a dissection, striking an inch or three-quarters from the spine of the pubes, he will readily find the round ligament. I do the operation sometimes one way and sometimes another. Young Martin, you know, fastens it to the urachus if he can find it.

A careful study of the **development of disease of the appendix** has lately been made by Dr. Robt. Abbe, Professor of Surgery in the New York Post-Graduate Medical School. From this investigation he concludes that there are usually five stages in this process: First, catarrhal inflammation of the lining mucous membrane; second, irregular narrowing of the caliber, with hypertrophy of the mucous and muscular coats; third, strictures; fourth, imprisoned food, desquamated epithelium and pus, forming concretions; fifth, obstruction at the stricture, distention, perforation, abscess.—*Am. Jour. Surg. and Gyn.*

PERISCOPE.

The treatment of uterine cancer by local application of lactic acid is again being discussed. This acid has a destructive action upon the neoplastic tissue, converting it into a black pulp, easily removed with a swab. Five or six applications have in some instances been sufficient to destroy epitheliomata which had recurred after operation, at the cicatrix within three weeks. The adjacent tissue must be covered with a protective plaster or ointment. The acid may be applied with a glass brush, or better as a cerate spread on cloth, with a piece of waxed paper over it and held in place with a bandage or tampon. A paste may be used composed of lactic and silicic acid. The dressing should remain in place twelve hours, and after removalthe wound is to be carefully washed with water. After a lapse of 28 to 48 hours, water dressings being used meanwhile, a second application is made, this method being continued until the pathologic tissue is destroyed. The pain, while severe, is of a few hours duration. The resultant cicatrix is soft and pliable.—*Am. Jour. Surg. and Gyn.*

William F. Waugh says in the *American Journal of Surgery*, that at present the most popular **operation for internal hemorrhoids**, at least with the Chicago surgeons, seems to be the ligature applied as described by Matthews, of Louisville. After the field of operation has been properly asepticized, the sphincter is dilated, the hemorrhoids drawn out to their fullest extent and transfixed by a needle armed with a double ligature of stout silk. This is then tied on each side of the pile, thus embracing each growth in two ligatures. If skillfully done, this is a very satisfactory method of dealing with the hemorrhoid. Considerable pain follows, as in all cases where the circulation of the blood in living, sentient tissue is cut off mechanically. The ligatures separate in from five to ten days; and it is sometimes necessary to apply a second ligature if the tissues embraced are quite thick. In one of his recent cases he was fortunate in overcoming both these difficulties by substituting a cord of pure rubber for the silk ligature. The operation was performed in the same manner, but the ends of the elastic cord were drawn through a pewter button and clamped, as in the operation for fistula. The cords cut through in twenty-four hours; and instead of the severe pain enduring for most of the day after operating with silk, there was quite a moderate amount of suffering, of short duration. The continuous action of the rubber renders the application of a second ligature unnecessary, yet the rubber must be drawn pretty tightly or it will slip off. The use of the elastic cord is so simple that it must have occurred to others; yet in none of the books accessible at present had he been able to find any mention of it.

Hydrocyanic Acid an Antidote to Chloroform.—Mr. Fred. Hobday, of London, observing that the respiratory centre was usually paralyzed first when death occurred during chloroform anesthesia, thought that hydrocyanic acid might prove of service as an antidote where the breathing was becoming shallow and weak, on account of the rapid and powerful temporary exciting effect this drug exerts on the respiratory centre. He administered hydrocyanic acid successfully in thirty-one cases of chloroform poisoning in animals, mostly dogs, though some were cats, and the list includes also one calf, one sheep and one horse; the cases were those in which during anesthesia the breathing either stopped suddenly or became gradually slower. The hydrocyanic acid was administered in some cases hypodermatically, in others was placed on the tongue. The good result was generally manifest in a very short time—half a minute to two or three minutes—the respirations being resumed and becoming strong and regular. In some of the cases, owing to the dose of hydrocyanic acid being rather large, the breathing became labored, when the administration of chloroform was resumed, so that a balance could be kept up between the toxic effects of the two drugs. These observations led fairly to the conclusion that hydrocyanic acid is of value as an antidote to chloroform, its beneficial effects being due to its property (when given in certain doses) of rapidly and violently stimulating and exciting temporarily the respiratory and cardiac centres, and so counteracting the depressant and paralyzing effects. The drug should be placed on the back of the tongue or injected hypodermically. In all his cases Scheele's acid was used, and he prefers it to the B. P. acid on account of its greater strength and consequent rapidly of action. For animals he considers one minim of Scheele's acid for every seven or eight pounds of body weight to be a fair average amount. It is well not to be too anxious to administer a second dose till perfectly sure the first has been futile.—*Medical Chronicle.*

The ink bacillus has been discovered and duly named. Out of fifty-seven different kinds of school inks examined, most of them made with nutgalls, the greater number contained bacteria. School inks colored with an anilin dye, even though the bottle had only just been opened, contained the micro-organisms already mentioned, and the number of bacilli was the greater the longer the ink had been exposed to the air. From such an anilin ink, which had been in an open inkstand for three months, a specific bacillus was isolated and mice were inoculated with it. After four days they died of blood-poisoning.—*Jour. A. M. A.*

Discussing the subject of **ovarian tumors complicating pregnancy**, Hohl (*New England Medical Monthly*) concludes his paper on the subject as follows: 1. Ovariotomy should be performed during the early months of pregnancy if possible. Artificial abortion may be produced in cases in which the tumor is intraligamentous, or firmly adherent, so that an operation would be difficult; puncture should not be considered. 2. During labor the tumor should be replaced, if possible, under anesthesia; in case this does not succeed, puncture may be resorted to, with subsequent vaginal incision, if necessary. A Caesarian section is indicated in the case of solid tumors, when the child is living. Ovariotomy may be performed immediately after, or it may be postponed until the puerperium. It is not justifiable to perform ovariotomy during labor. 3. If performed during the puerperium, the operation should not be done later than the second week.

The most populous block in New York is on the West Side, and is bounded by Amsterdam and West End avenues and Sixty-first and Sixty-second streets. The population count is 3580. Squalor reigns supreme. Irish, Germans, Italians and Austrians furnish the material for racial wars. The Hebrew is the only absentee and the Austrian butchers constitute the only placid element. The "head of the family" wages averages $12.50 per week. Three tiny, narrow rooms are the most a family can expect, and for these pay a rent of $10 to $12. The 3,580 people live in 2,639 rooms, the kitchen always the "living-room," and less than 1,200 of these have an outside window. The tenements are all patterned alike, one long row of dull red brick structures that, save for the cramped stoops might as well be factories. The block has an environment all its own. Despite the crowding of the region, many lots to the north along West End avenue are vacant, the rocks that in places are miniature cliffs have not been blasted away, and there are still some remnants of "Shantytown" overlooking the railroad track. Heaps of lumber and rods of sewer pipe extend in every direction. Strange to say these dwellers upon the steep hill care but little for the partition bath tubs of ingenious owners, not as much perhaps as for the marble palaces on Fifth Avenue. A proposed North River bridge may disperse the tramps from the railroad and New York may yet have an opportunity to weep for those sanitary sins, which to her seem the most precious.—*Jour. A. M. A.*

The late William T. Lusk, M.D., LL.D., of New York, in *Modern Medicine*, strongly opposes **the vaginal douche before and after labor.** While the vaginal canal abounds in micro-organisms, he believes that they only intensify the acid reaction of the vaginal secretions, thus rendering them unfavorable to the multiplication of the streptococcus, which is the germ producing puerperal septicemia. The normal vaginal secretions furnish a soil hostile to all forms of cell growth. The mucous plug as found in the cervical canal of a pregnant woman protects her from the invasion of micro-organisms, this being true, in natural labor the protection of uterine cavity is complete. Nature seems to guard the woman against infection during the entire act of parturition, 1st, with the rupture of the membranes, the downward flow is produced by the escape of the amniotic fluid; 2nd, the descent of the child cleanses the vaginal canal, and the associated leucocytosis and increases of vaginal secretion, sufficient to destroy the action of the septic germs; 3rd, the passage of the placenta completes the toilet of the vagina. The fact that nature provides this excellent means of self-defense clearly shows that the disturbing method of disinfection employed before and after labor, under the plea of prophylaxis are not commendable. The antiseptic douche dissolves the mucous, sets free the imprisoned germs, weakens the resistance of tissue and contributes to the the extension of the source of infection. A careful examination of hospital statistics shows that, with the abolition of the routine practice of douching, the morbidity is diminished, and the mortality statistics are slightly favorable.

Pertussis.

A mixture used in the service of Albert Robin is

℞ Bromoform, 1.75.
Tr. aconit. rad., 1.0.
Tr. nucis vom., 0.75.
Tr. grindel. robust., 0.75.
Tr. bryoniae, 0.50.
Syr. opii extr., 50.0.
Syr. aurant. cort. amar., 105.0.
Sp. vini rect. (90 per cent.), 25.0.

M. Dissolve the bromoform in the alcohol and a mixture of the tinctures. Pour this into a mixture of the syrups and shake. This forms a perfectly clear solution, of which a soupspoonful contains 6 drops of bromoform and 1 centigramme (1-6 grain) of opium extract.—*Med. Bull.*

The arrest of hemorrhage even from slight wounds in patients affected by hemophilia is sometimes a serious problem: with, not rarely, a fatal solution. Bienwald has recently adopted a new plan in the case of a child, aged two years, the subject of hemophilia. Having failed to arrest the hemorrhage from a small wound on the face by the application of perchloride of iron, he obtained some blood by aspiration from a healthy subject and deposited it on the wound. In a few minutes it coagulated, and the hemorrhage at once ceased. His explanation of the action of the remedy is that it supplies the ferment necessary for thrombosis in the small vessels. Whether this is correct or not it is impossible to say in the absence of definite knowledge of the pathology of hemophilia. As affording his explanation some support may be mentioned the success obtained by Wright in his experiments with a solution of fibrin ferment and chloride of calcium as a styptic. Bienwald's ingenious method certainly deserves further trial.—*Am. Jour. Surg. and Gyn.*

New York Medical Journal quotes Hirsch as saying that in many girls 'chlorosis would not assume so grave a character if they were not subjected to **the pernicious habit of wearing corsets.** The best iron baths will have no effect whatever if the body is habitually squeezed into a corset. It is useless to induce deep respiration by bathing if, after the bath, free respiration is to be hindered by a corset. Of what use is it, the author asks, to excite the appetite if the stomach is squeezed? The defect in respiration results in troubles of the circulation as well as in cardiac obstructions and disturbances. Hirsch thinks the corset should be abandoned; that a "wasp-waist" is no longer considered the ideal of beauty; and that we may become accustomed to another form. The knowledge of having a healthy body should facilitate the adoption of the new mode of dressing. Then it will be found that the intensity and duration of chlorosis will diminish, for gymnastic exercises and games have no value unless the body is able to move freely and without restraint. Then it will become so strong and erect that it will not be necessary to resort to a corset.

For the relief of painful anal fissure Dr. Adler has recommended an ointment of extract of hemlock, 5 grammes; castor oil, 5 grammes; lanoline, 30 grammes; to be applied to the parts after each action of the bowels.—*Exchange.*

For Soft Corns and Small Warts.

℞	Tannin	4	(3i.)
	Alcoholis	96	(℥iii.)

M. Sig.: To be used frequently as a wash, after which dry the part and dust it with calomel.—*Charlotte Med. Jour.*

The Louisiana State Board of Health has recently investigated the subject of **the sanitary defect of our sleeping-car systems,** and the following resolutions have been adopted: Be it

Resolved, That every sleeping-car entering the city shall, on its arrival, be thoroughly cleaned and disinfected, under the surveillance of our sanitary inspectors, as follows: 1. The towels, bed clothes, etc., to be submitted to a vigorous disinfection by ebullition in water for an hour, or sterilized in an autoclave or steam oven. 2. The closets and cuspidors (these should be of china-ware, not metallic) to be washed out with antiseptic liquids and always provided with a supply of such solution. 3. The car proper to be disinfected by means of formalin. This agent positively kills or destroys the germs of tuberculosis, diphtheria and smallpox in a few minutes. It causes no appreciable injury to the woodwork, upholstery and carpets. The method of applying it is very simple. It can be applied in the form of fumes or by a special apparatus. It applies to mattresses and pillows and cushions, as it possesses most penetrating properties. The disinfecting process can be carried out quickly and at little expense."

The subject of car sanitation is one that appeals to the large majority of our population on account of its possibilities in regard to transmission of contagious diseases. That such diseases may be transmitted in this manner is admitted by all sanitarians, and the danger of contracting diphtheria, syphilis, eruptive fevers, etc., from lack of cleanliness in sleeping-coaches, is not a remote possibility, but an actual reality. The transmission of tubercular disease in this manner has been disputed, but there is no doubt but that in certain depressed conditions of the system, when the ordinary forces with which nature surrounds us to guard against the encroachment of infectious diseases have been weakened, that the inhalation of dust containing tubercular matter is wrought with serious danger. The subject of the sanitary regulation of sleeping coaches is one of the utmost importance, and these regulations should be made universal. The adoption of proper resolutions by the Louisiana State Board of Health is of importance not only locally, but it may be the entering wedge for the establishment of similar laws in other parts of the United States. If such laws existed in New York, Ohio, Pennsylvania, and Illinois as well as Louisiana, it would be a fairly satisfactory guarantee that travel east of the Mississippi had been deprived of its worst sanitary dangers. Such a movement would soon be followed by similar regulations by other States, so that finally traveling in the United States could be undertaken without the danger of contracting diseases to which we are now exposed by the unsanitary condition of the sleeping-car.—*Jour. A. M. A.*

In most large cities **cooking schools are now established** either as auxiliaries of the regular systems of education or as private or philanthropic institutions. These establishments have a greater significance than to simply teach the pupil to cook; a scientific knowledge is imparted as regards what to cook and what foods afford a greater degree of nourishment to the body. Cooking has indeed become to be an important essential to health, and the science of the kitchen is certainly not an idle term. The educated housewife has come to the realization that cookery embodies a knowledge of food elements, chemical composition, their adaptability and digestibility. These important matters have in many cases been left to ignorant persons to whom it would be impossible to conceive the injury that obtains to cooking without thought. The children of the schools are the home makers of the near future, and the instruction given them in cooking schools makes them practical and economical in governing their homes. The physician himself should have a knowledge of cooking, as his being conversant with the composition of foods and the effects that heat gives to them increases his value as a medical adviser. Of the two the knowledge of dietetics and cooking might be found much more valuable than the knowledge of drugs. Both kinds of information are important, but a thorough knowledge of food stuffs and their relation to the body must be of inestimably more value than the information gained through the most thorough study of pharmacy and the materia medica. Physicians frequently prescribe iron for the anemic conditions without considering that the blood is not made of iron, but is built up from the food. Weak nerves can be improved by proper nourishment only. In proper nourishment lies the chief remedy obtainable for all chronic maladies. If a good school and experimental kitchen could be connected with every medical college, and every student be required to take a course both in practical and theoretical cooking and dietetics, a revolution in the methods of treating disease would quickly follow.—*Dietetic and Hygienic Gazette.*

At a meeting of the Belgian Society of Otology and Laryngology, Dr. Broeckaert stated that he had recently observed a remarkable **vesicant action due to an application of cocain** solution to the skin. In the belief that a similar case had never been placed upon record he briefly reported it (*Med. Bulletin*). He had been consulted by an army officer on account of a slight obstruction caused by a certain degree of hypertrophy of the inferior turbinated bone. In order to anesthetize the mucous membrane he was about to apply cocain when the patient interposed and declared that it produced dangerous effects in his person. He related that once in the country an application had been made to the skin at the seat of a boil, and in the course of a few hours an eruption occurred which he could only compare to the effect of a fly-blister. Broeckaert could scarcely credit the statement, but at the suggestion of the officer he let fall a drop of a 10 per cent. solution upon the man's forearm. Two days later the man returned and surprised the speaker by showing him an eruption of small vesicles, the extent and form of which corresponded exactly to the spot upon which the cocain had been dropped. Still skeptical, the speaker asked himself whether this was not a case of male hysteria. To dissipate all doubt he tried a new and decisive experiment. The patient's eyes being closed, the speaker applied to one arm a drop of a freshly prepared cocain solution and to the other a drop of distilled water, the patient believing that both fluids were solutions of cocain differing only in strength. The experiment corroborated the patient's statement. The cocain solution caused vesication. The effect in this case was in many respects comparable to that of cantharidal plaster. At the end of a certain time the vesicles dried up, but they left behind them a slightly pigmented cicatrix, proving that the irritation had been comparatively strong and had even led to the destruction of some extravasated red corpuscles. Curiously enough, corrosive sublimate, carbolic acid, iodoform, and other more or less irritant substances had no effect upon this individual. The man was robust and in good general health, but had previously had some arthritic manifestations.

H. C. Phillips, M. R. C. S., reports in the *Brit. Med. Jour.* as follows **an exsanguineous confinement**: A month or two ago I attended a Mrs. P. in her second confinement, her first having taken place some twelve years previously. The confinement was in every way a normal one, with the exception that from beginning to end not a dozen drops of blood were lost; at no period was the examining hand stained with blood, and even the placenta and membranes appeared as though recently washed. The placenta had undergone a certain amount of fibrous degeneration, but no calcareous deposits had been found. The woman was far from anemic—strong and healthy in every way, and made an uninterrupted recovery. Possibly the fibrin was excessive in quantity, but I have never come across a description of a similar case.

In Umbilical Hernia in Infants, Tobas draws up a couple of cutaneous folds around the navel, and closes them over it with a soft pad between, holding them in place with strips of diachylon long enough to reach from side to side of the abdomen, reinforcing the support with a couple of vertical strips of plaster. He removes the dressing once or twice a week.—*Med. Times.*

The appalling revelations of the mortality in **Italian foundling hospitals** have led to the nomination of a committee of inquiry into the whole subject—the illegitimacy which gives rise to the system of foundling hospitals, the provocatives of that illegitimacy, and the administration of the hospitals. The committee is composed of high medical authorities, members of Parliament, and other well known men.—*Med. News.*

According to the *Brit. Med. Jour.*, V. Despeigues (*Lyon med.*, December 28, 1896) states that after the appearance of his report of a case of **cancer in which Rontgen rays appeared to have a good effect** (*ibid.*, July 26 and August 9, 1896), he received a communication from L. Voigt, Director of the Vaccine Institute of Hamburg, giving an account of the following case : The patient was a man 83, who had complained for nine months of difficulty in swallowing and pain in the left ear, and in the occipital and cervical distributions of the left facial nerve. There was a small epithelial cancroid ulcer in the mouth, starting from the lingual fold, with an enlarged gland in the submaxillary region. Salivation was continual, and pain so severe as to require regular administration of morphin. On August 28, the application of Rontgen rays was begun with an apparatus yielding sparks of 10 CM., used in two daily sittings of one-half and sometimes of a quarter of an hour; the pain almost immediately diminished so much that the morphin was discontinued, except an occasional dose at night to induce sleep. The patient was beginning to hope for a cure, but the disease invaded the left part of the tongue, salivation did not cease, and the difficulty in swallowing increased. The patient became emaciated, and died on October 22 of pneumonia after 100 applications of the rays, which gave him considerable relief. The good effect of the rays cannot be attributed to suggestion, as it lasted eight weeks, nor to destruction of sensory nerves, since these were not destroyed. The growth did not, as in Despeigues' case, diminish in volume. It may, however, be taken as proved that if the rays have little or no action on the evolution of the disease their anesthetic effect is very marked. It may be added that after the eighteenth sitting the skin of the left cervical region became almost as black as that of a negro; a similar pigmentation took place on the right side when the rays were directed upon that side.

At the urgent request of Professor Virchow, a new fireproof building is about to be erected for the collections of the pathologic institute of the Berlin Institute. These celebrated collections, containing many rare specimens, are now stored in a building which offers no protection against fire.

Dr. W. Kramer (*Arch. f. klin. Chir.*, Bd. 52, S. 34) says that although a number of hypotheses have been established at various times regarding the **etiology and operation of desmoid tumors of the abdominal wall**, nothing definite is known. He then gives a detailed account of a case of congenital fascial dermoid in the abdominal wall of a girl 4½ years of age successfully operated upon by him, which report he thinks might lead to a somewhat better understanding of the development of the desmoids, which latter have hitherto been observed only in adults. Diagnosis in the case reported was: Sarcoma of abdominal wall, originating in one of the aponeuroses. The operative wound healed without any reaction. There was no recurrence and no ventral hernia up to date, nine months after operation. The cicatrix was perfectly sound.

Prof. Ladd says in *Journal of Metaphysics:* "We cannot deny the facts of physiological psychology. No doubt **consciousness depends on the condition of the brain.** Drugs may modify character. Insanity may be produced by physical conditions. The decay of mind leaves no part of consciousness free. The way to meet this class of facts is not by denial, but by showing another class, another side of the same problem which makes as good a showing. While we believe that consciousness depends on the brain and on health, an equally significant fact is that the bodily state depends on the consciousness. The impressive thing is that bodily health is chiefly related to a state of the mind. It is rather more true that digestion depends upon feeling well mentally than that feeling well mentally depends on the digestion. If it is true that a hot iron burns the flesh, it is also true that burn brands have been produced by hypnotic suggestion. It is a reciprocal union, mind and body are correlated in both directions."

NEWS AND MISCELLANY.

O'Daniel, Macon, Ga., has prescribed **Unguentum Resinol in cases of eczema capitis, E. facialis, and seborrhea** with the happiest results. In pruritis ani its action was prompt and effective, and he commends its use in such cases as amongst the best remedial agents of its class.

Expressed in time units, the distance between **Cape May, N. J., and Philadelphia, is 100 Minutes**—measured by the "Century Flyer" over the route of the South Jersey Railroad.

This, and like markedreductions in time to other points, in connection with the superior modern equipment, splendid service, and capable management maintained by the railroad, easily accounts for recent great increase of travel to the health resorts along the southern coast of New Jersey.